



# Arithmetic in My World

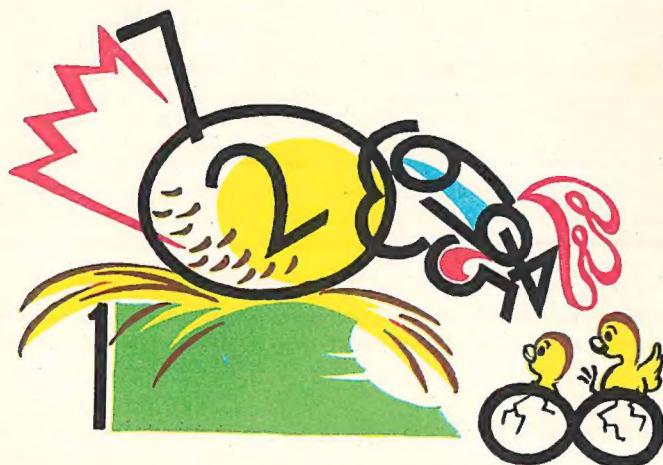


# Arithmetic

IN MY WORLD

by  
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1958

ALLYN AND BACON, INC.

Boston New York Chicago Atlanta Dallas San Francisco

## **ARITHMETIC IN MY WORLD**

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Illustrated by Herbert Townsend

*The authors believe that the learning and teaching of arithmetic is based on child growth. Through the study of many thousands of children and their problems, they have determined how and what children should learn in order to establish desirable growth patterns. They have found that children's problems can be organized into units of work composed of activities which are in reality areas of development.*

*It should be noted that there are two headings for each unit in the Contents. The first heading names the social situation which the authors have established for each unit of work. The second heading indicates the associated arithmetical concepts which are developed in the unit.*

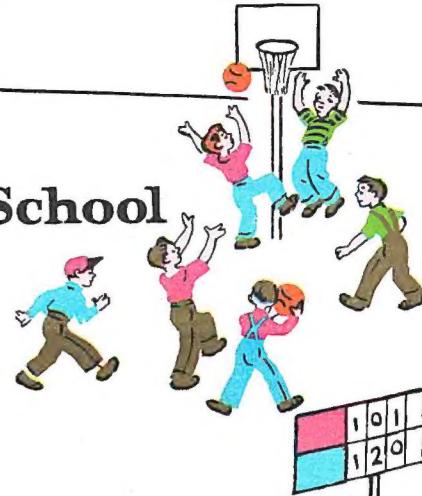
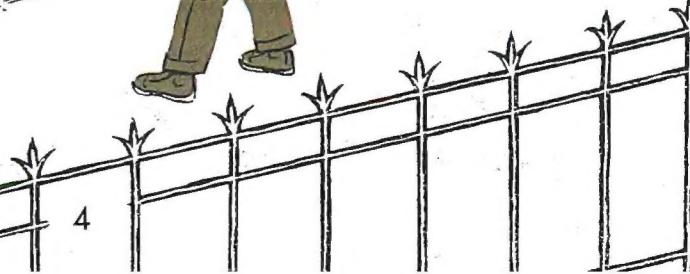
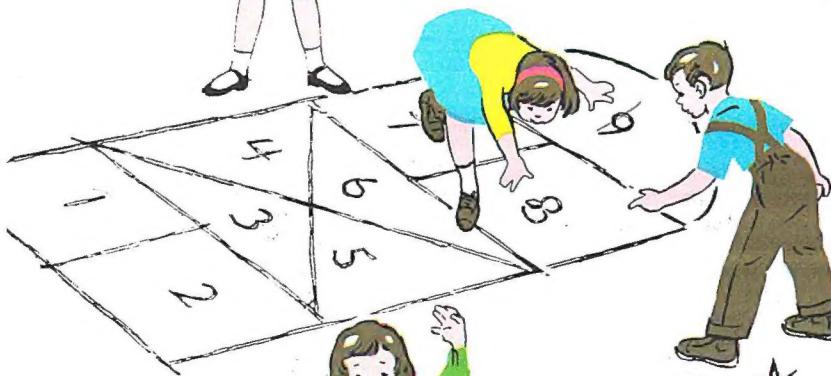
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Unit 1

# Work and Play at School



## We See Groups of Things

See the boys and girls in the picture.

What fun they are having!

It is the first day of school.

The children are happy to be  
with their friends.

They will tell each other  
about their summer fun.

They will tell about the things they want  
to do in school this year.

1. Does the picture show you that all  
of the children are out of school?

2. What games are the children playing?  
How many games are they playing?

3. How many children are jumping rope?

4. Which children need numbers  
in what they are doing?

5. How do the boys need numbers  
in their ball game?

6. What games do you play where you  
use numbers?



## A Post Office at School

The boys and girls want their mothers  
to see what they do in school.

They have a Post Office of their own.  
They will mail letters to their mothers.

1. Jane buys a stamp for her letter.

How much will she pay for it?

2. How much does an airmail stamp cost?

3. When can we use a two-cent stamp?

4. We can buy a stamp for one cent.

Do you know how we can use one-cent stamps?



## Buying Stamps

1. Which stamp will you buy for a letter?
2. Where is the one-cent stamp?
3. Which stamp costs the most?
4. Tell why we use airmail stamps.
5. If Jane gets an airmail stamp  
and a stamp for one cent, does she need  
more than six cents? Why?
6. Bob has five cents. Can he get  
a three-cent stamp? Why?
7. Sue wants to mail four letters.  
She has seven three-cent stamps.  
How many stamps will she use? Why?
8. Can Joe pay for an airmail stamp  
with a nickel? Why?
9. Which stamps will Jane use to mail  
three post cards?



## Who Wants Milk?

Bob is the milkman at school this week.  
He says, "All of you girls  
have a nickel for milk today."

He counts the girls, "One, two, three,  
four, five, six, seven, eight, nine.  
Nine girls each have a nickel for milk."

1. Can you count the boys?
2. Count the nickels on the table.  
Do you see nine nickels? Where?  
Count the bottles of milk that you see.



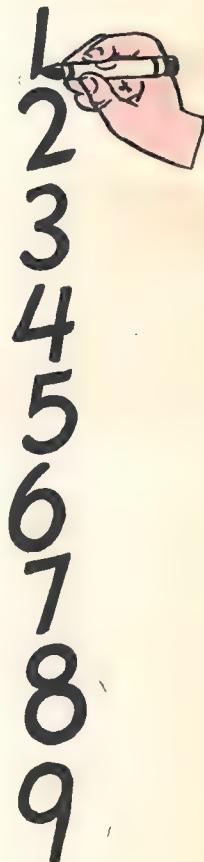
## A Birthday Book

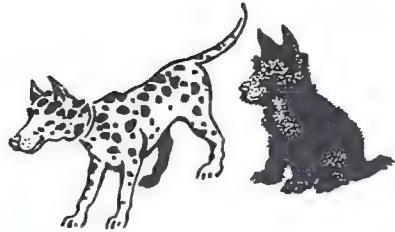
Jane made a picture book  
for her sister's birthday. She wanted  
to number the pages. She asked  
Miss Green to help her make the numbers.

See the numbers that she made.

1. How many pages did Jane have  
in her book? Tell the names  
of the numbers.
2. Let's write them as Jane did.  
Where do we begin when we write  
the number for one? Where do we begin  
when we write any number?

3. Write the number that tells  
how old you are.
4. Write the number that says two.
5. Write nine, six, five, eight, seven.





## On the Way to School

Sue sees two dogs on her way to school.

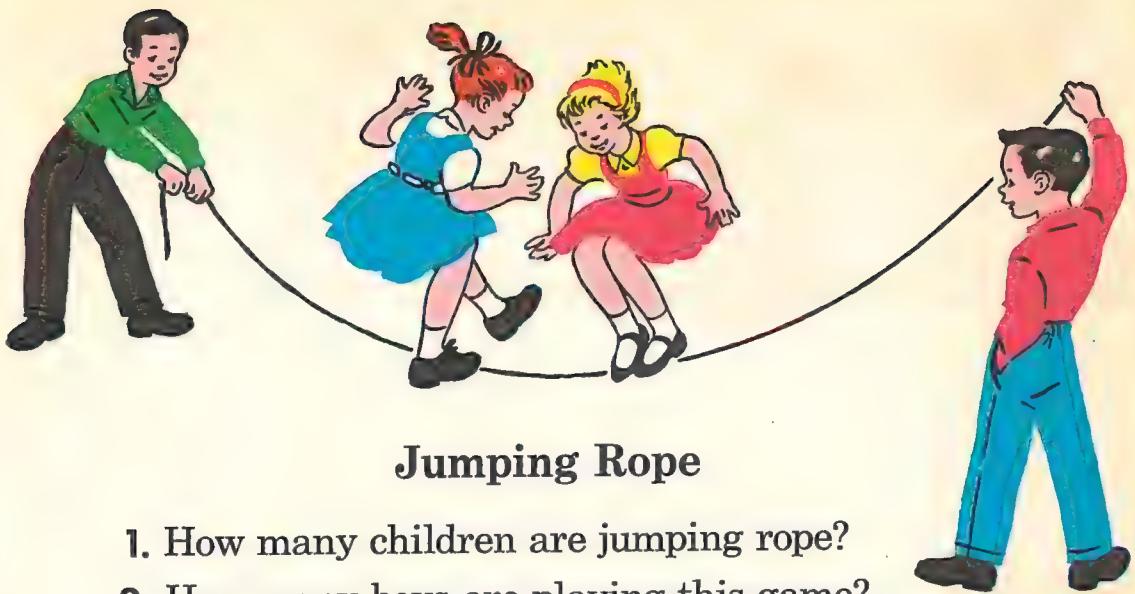
1. Two dogs are one dog and ? dog.
2. Two dogs take away one dog leaves ? dog.
3. Two dogs are one group of ? dogs.
4. One group of two dogs is ? dogs.



Sue waits for three cars to go by.

1. Three cars are one car and one car and ? car.
2. Three cars are one group of ? cars.
3. Three cars are two cars and ? car.
4. Three cars are one car and ? cars.
5. Three cars take away one car leaves ? cars.
6. Three cars take away two cars leaves ? car.
7. One group of three cars is ? cars.





## Jumping Rope

1. How many children are jumping rope?
2. How many boys are playing this game?
3. How many girls are jumping?
4. Tell a number story about the boys and girls playing the game together.
5. If you put a group of four children into two groups of the same size, how many children are in each group?  
If two children go home, tell the number story about the four children.
6. Four children are two children and ? children.
7. Four take away two leaves ?.
8. How many children are two groups of two children? How do you know?



## Playing Marbles

How many marbles do you see?

How many marbles are red?

How many marbles are blue?

What number stories can you tell  
about the marbles?

1. Four marbles are three marbles and  
? marble. Four marbles are one marble  
and ? marbles.

2. Four marbles take away one marble  
leaves ? marbles.

3. One group of four marbles is ? marbles.

4. 4 take away 2 leaves ?.

5. 4 is 1 more than ?.

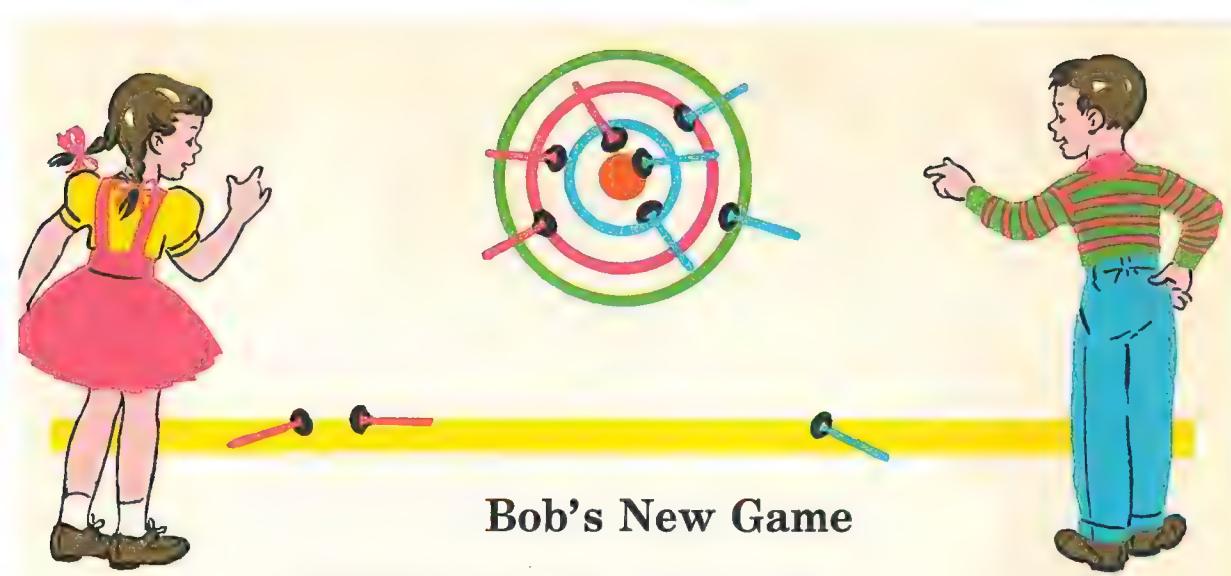
6. 4 of the marbles is 1 group of ?.

7. 1 and 1 and 1 and 1 are ?.

8. 4 take away 1 leaves ?.

9. 4 take away 3 leaves ?.





## Bob's New Game

Bob took a new game to school.

He let Sue play first. She threw five darts.

1. How many darts hit the board?

How many darts went on the floor?

2. 5 darts are 3 darts and ? darts.

3. Five darts are two darts and ? darts.

4. Then Joe had a turn. He threw 5 darts.

How many of his darts hit the board?

How many went on the floor?

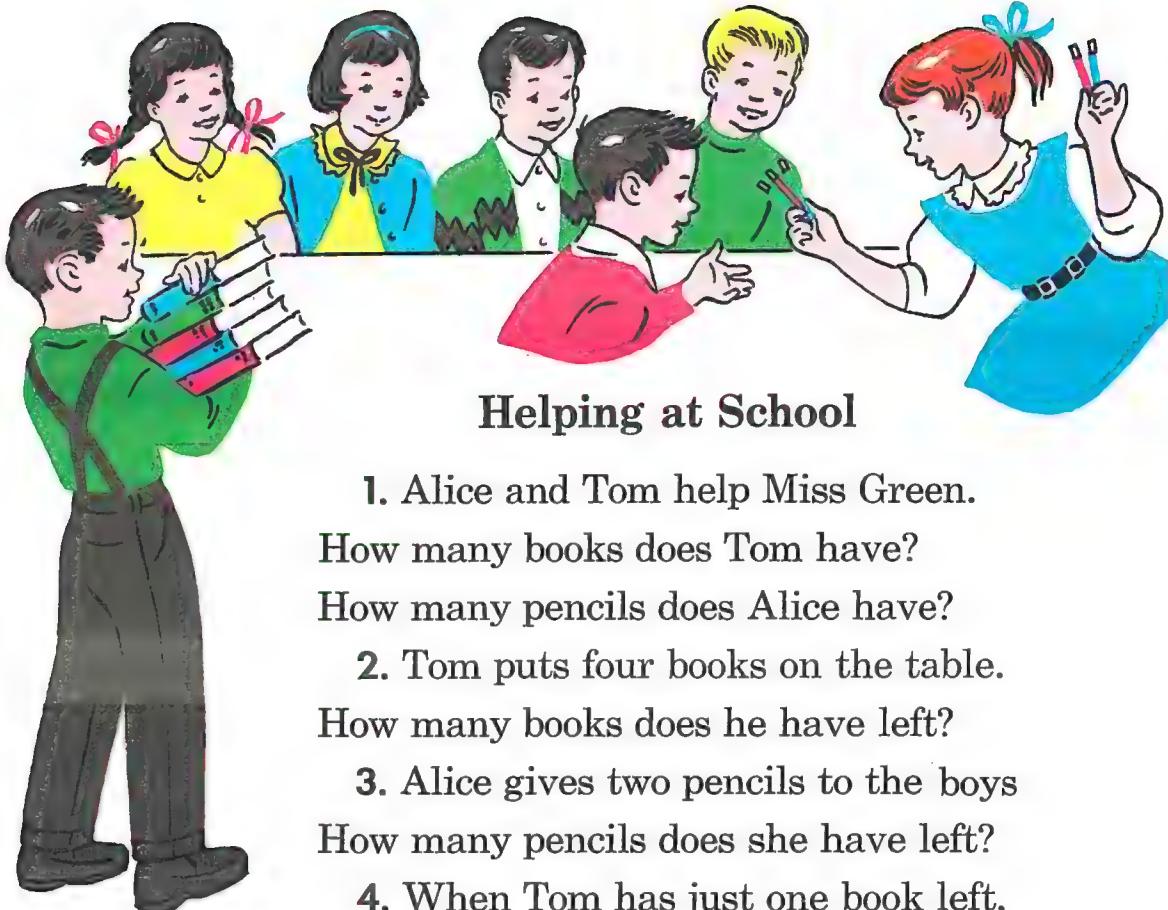
5. One group of five darts is ? darts.

These are some of the number stories  
about Joe's game. Can you finish them?

6. Five darts are one dart and ? darts.

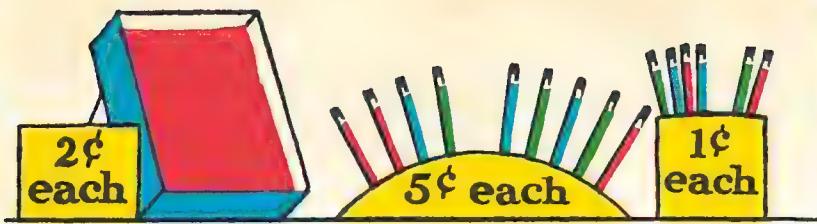
7. Five darts are four darts and ? dart.

8. Five of the darts is one group of ?.



## Helping at School

1. Alice and Tom help Miss Green.  
How many books does Tom have?  
How many pencils does Alice have?
2. Tom puts four books on the table.  
How many books does he have left?
3. Alice gives two pencils to the boys  
How many pencils does she have left?
4. When Tom has just one book left,  
how many books has he given out?
5. 5 pencils take away 2 pencils  
leaves ? pencils. 3 and 2 are ?.
6. 5 books take away 4 books  
leaves ? book. 1 and 4 are ?.
7. 1 and 1 and 1 and 1 and 1 are ?.
8. 5 take away 1 leaves ?.
9. 5 take away 3 leaves ?.



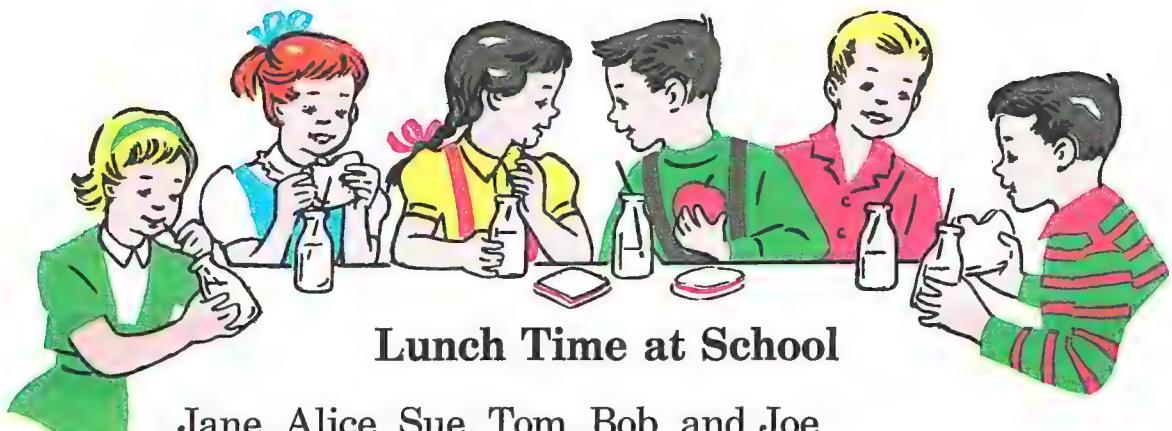
## Bob Buys Pencils and Paper

Bob has a nickel.

One nickel is as much as 5 pennies.



1. How many 5-cent pencils can Bob buy with a nickel? How many penny pencils can he buy with a nickel?
2. A piece of red paper costs 2 cents. How much more will a piece of red paper cost than a penny pencil?
3. 3 pennies and 1 penny are ? pennies.
4. 4 pennies take away 2 pennies leaves ? pennies.
5. 3 take away 2 leaves ?.
6. 5 take away ? leaves 1.
7. 3 is 1 more than ?.
8. 2 and ? are 5. 1 and ? are 5.



## Lunch Time at School

Jane, Alice, Sue, Tom, Bob, and Joe  
are eating lunch at school today.

1. How many children are at the table?
2. How many are boys?
3. How many girls do you see?
4. What number stories  
about six children do you see?
5. When the three girls go to get milk,  
how many boys are left?
6. If one boy goes to get ice cream,  
how many children are left?
7. If Tom and Joe leave the table,  
how many children are left?
8. Jane and the boys go away. How many  
children are left at the table?
9. Tell all the number stories  
about the children going to get ice cream.



## Alice Likes Bob's Game

Today Alice is playing Bob's game.  
There are six darts. Five are on the board.  
How many darts are in her hand?

She throws the six darts.  
Three darts hit the board.  
Three darts fall on the floor.  
What number story does this tell you?

1. 6 darts are 3 darts and ? darts.
2. 6 darts are 4 darts and ? darts.
3. 6 darts are 5 darts and ? dart.
4. 6 darts are 2 darts and ? darts.
5. 6 darts are 1 dart and ? darts.
6. How many darts are in 2 groups  
of 3 darts each? in 3 groups of 2 darts?
7. A group of ? darts is 6 darts.
8. How many more than 4 is 6?

## What Do You Know about Six?



1. How many pencils has Sue put in the box? How many groups of 3 pencils each do you see?

2. 3 pencils and ? pencils are 6 pencils.

3. 6 pencils take away 3 pencils leaves ? pencils.



1. How many children do you see? How many are in each group?

2. 4 children and ? children are 6 children. 2 and 4 are ?.

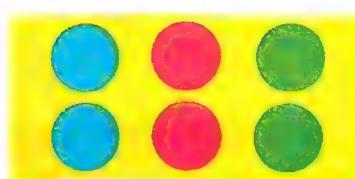
3. 6 children take away 2 children leaves ? children.

4. 6 take away 4 leaves ?.



1. How many balls are there? How many groups of 2 balls?

2. Count the balls by twos.



1. How many books are on the table?  
2. Tell all the number stories you can about the 6 books.

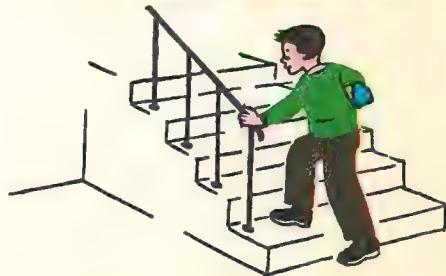


## Words We Use

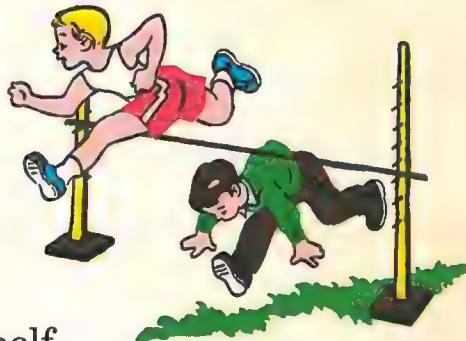
Bob and his brother Jack go to school.  
Bob is the **tall** boy. Which boy is Bob?  
Jack is **short**. Which boy is Jack?  
Does the **tall** boy or the **short** boy  
have a book?



Is Jack on the **top** step  
or the **bottom** step?  
Where is the **top** step?

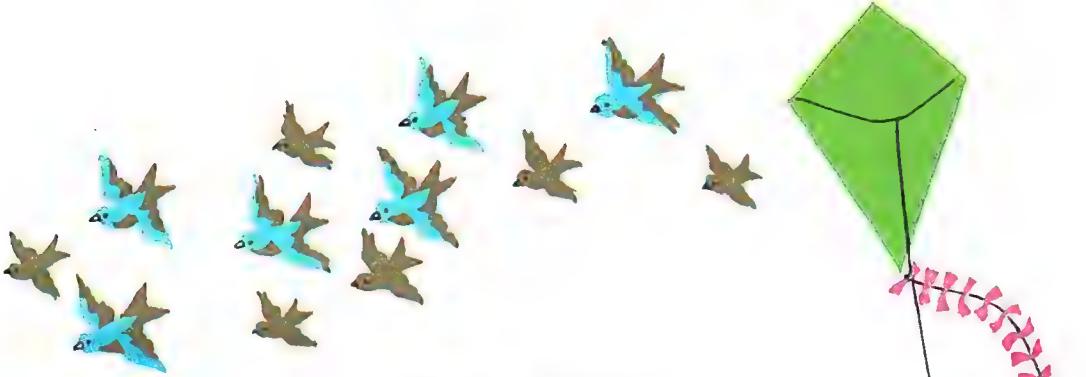


Bob likes to jump.  
He can jump **over** the stick.  
Jack runs **under** the stick.  
Find Bob. Find Jack.



Can you find these?

1. a **tall** boy in your class
2. a **short** girl in your class
3. something on the **bottom** shelf
4. something on the **top** shelf
5. something that is **over** another thing
6. something that is **under** another thing



## Flying Kites

Bob and Jane like to fly kites.  
Who has the **big** kite? the **small** kite?  
Is Jane's kite as **high** as Bob's kite?  
Jane's kite has a **short** string.  
Is the string on Bob's kite **short**, too?  
Can Jane's kite go as **high** as Bob's?  
Why must her kite stay down **low**?

Do you see **many** or **few** kites?  
Are there **many** or **few** birds?  
Does the dog's rope look as **long**  
as the string on Bob's kite?

1. Make your hands show **high** and **low**.
2. Find a group with **many** things in it.
3. Find a group with **few** things in it.
4. Tell when something is **tall**; is **long**.
5. Find a **big** book. Find a **small** book.





## Making a Play Train

The children have just made a train.  
How many boys are there? How many girls?

How many cars are there in the train?  
How many cars did the children make  
so people could ride in them?  
How many other cars did they make?

Where do you see these number stories?

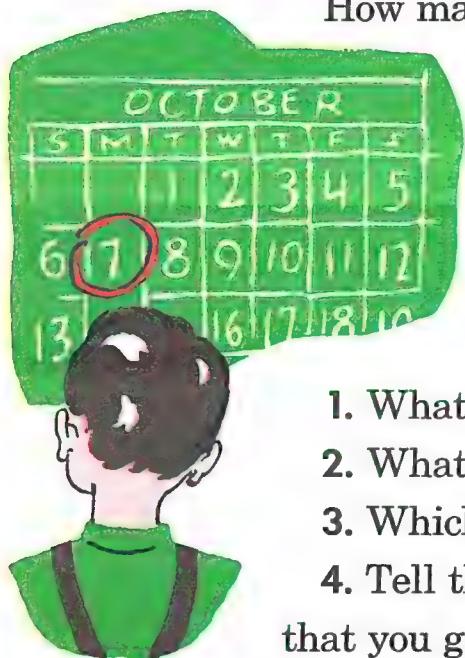
1. Seven children are four children  
and three children.
2. Seven cars are five cars and two cars.
3. 7 children are 3 children and 4 children.
4. 7 cars are 2 cars and 5 cars.
5. 7 cars are 1 group of 7 cars.
6. 3 and ? are 7.      4 and ? are 7.
7. 2 and ? are 7.      5 and ? are 7.
8. 1 group of ? is 7.    7 is ? group of 7.

## Tom's Birthday Is Coming

Today is Monday. Tom tells the children that his birthday comes in one week.

Read the names of the days of a week:  
“Sunday, Monday, Tuesday, Wednesday,  
Thursday, Friday, Saturday.”

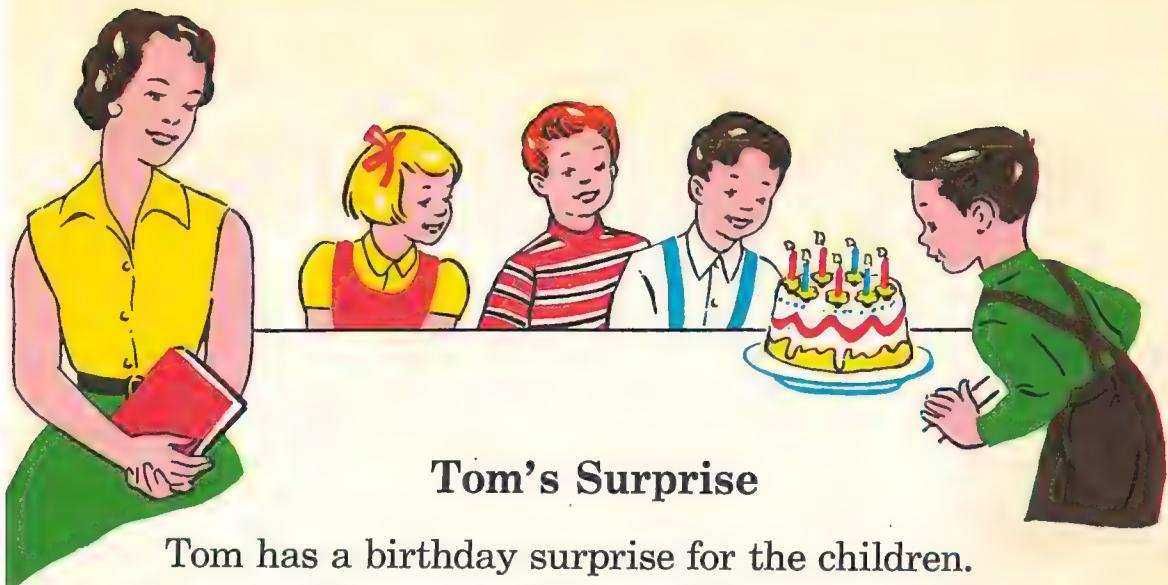
How many days are in one week?



Let's look at the calendar.  
What do you think the ring  
around the 7 shows?

Tom says that his birthday  
comes on Monday. Is he right?

1. What day comes before his birthday?
2. What day comes after Monday?
3. Which day is a play day?
4. Tell the names of the days  
that you go to school.
5. How many days do you go to school  
each week?
6. 7 days take away 2 days leaves ? days.
7. 7 days take away 5 days leaves ? days.



## Tom's Surprise

Tom has a birthday surprise for the children.  
He brought his birthday cake to school.

1. How old is Tom? How can you tell?

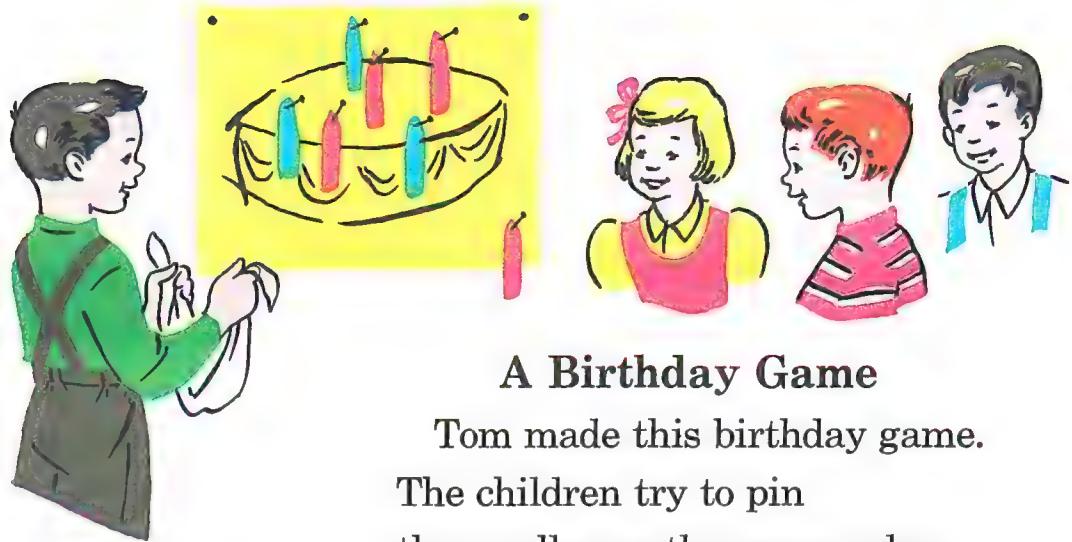
How many candles are there on his cake?  
How many are red? How many are blue?  
Tell a number story about the candles.

2. Seven candles are four candles  
and ? candles.

3. He blows out four candles.  
How many more must he blow out  
before he can cut his cake?  
Seven take away four leaves ?.

4. Tom takes three candles off his cake.  
How many candles are left? Why?  
Seven take away three leaves ?.





## A Birthday Game

Tom made this birthday game.  
The children try to pin  
the candles on the paper cake.

1. How many candles were on Tom's cake?

Does his game have the same number  
of play candles?

2. How many candles did the children  
pin on the paper cake?

How many candles are not on the cake?

7 candles are 6 candles and 1 candle.

7 candles are 1 candle and 6 candles.

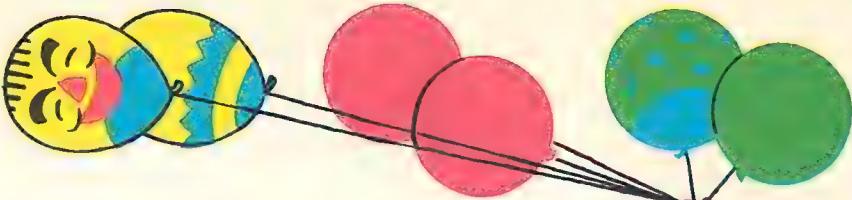
3. 7 is ? and 1.                      2 and ? are 7.

4. 7 is ? and 6.                      7 is 3 and ?.

5. 7 take away 6 leaves ?.      7 is 2 more than ?.

6. 7 take away ? leaves 6.      1 group of 7 is ?.

7. 7 is how many ones?



## The Balloon Man Comes

How many balloons has the balloon man today? How many groups of 2 balloons are in his group of 6 balloons?

4 balloons and 3 balloons are ? balloons.

1 balloon and ? balloons are 7 balloons.

How many more than 4 balloons are 6 balloons?

The man had 6 balloons.

He has 3 balloons left. How many did he sell?

1. 5 balloons and 2 balloons are how many balloons?

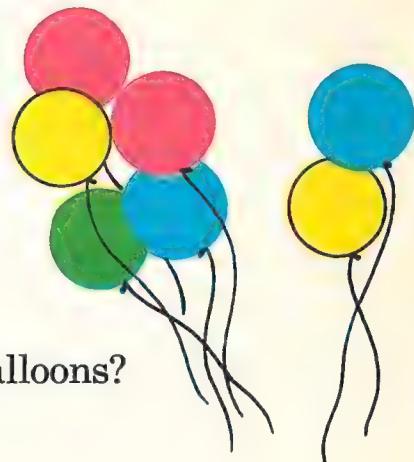
2. How many are 2 groups of 3 balloons?

3. 4 balloons and 2 balloons are how many balloons?

4. 3 and 4 are ?. 3 and 3 are ?.

5. 1 and 5 are ?. 2 and 5 are ?.

6. 2 and 4 are ?. 6 and 1 are ?.



## Do You Know These?

1. Read these number names.

four

seven

three

two

one

five

six

Write the number for each name.

2. How many boys are 1 group of 7 boys?  
3. Which is more, 4 marbles  
or 7 marbles? How many more?

S	M	T	W	T	F	S
1	2	3	4	5	6	7



4. How many days are in a week?

3 days are ? days less than a week.

5. How many books are  
in 2 groups of 3 books each?

5 take away 3 leaves ?.

7 is ? and 5.

4 is ? more than 3.

3 take away ? leaves 2.

5 and 2 are ?.

6 take away 5 leaves ?.

2 groups of 2 are ?.

3 groups of 2 are ?.

5 is ? more than 3.

5 take away 1 leaves ?.

6 take away 4 leaves ?.

4 and 2 are ?.

6 and 1 are ?.

2 groups of 3 are ?.

6 is ? more than 3.

7 take away 4 is ?.

2 and 5 are ?.

4 is 2 groups of ?.

## Unit Test

1. How many apples are in this group?
2. What little groups can you see in six apples?



3. Can you tell how many things there are in each of these groups by looking at them? Write the numbers.



4. Which stamp costs six cents?
5. Will a nickel and a penny buy an airmail stamp? Why?
6. Are 3 pennies and 2 pennies as much as a nickel?
7. 7 pennies are how many more than 5 pennies?
8. How many are two groups of 2 things? three groups of 2 things?
9. Are 3 apples and 4 apples more than 1 apple and 5 apples? How many more?



## Unit 2

# Good Times Every Day



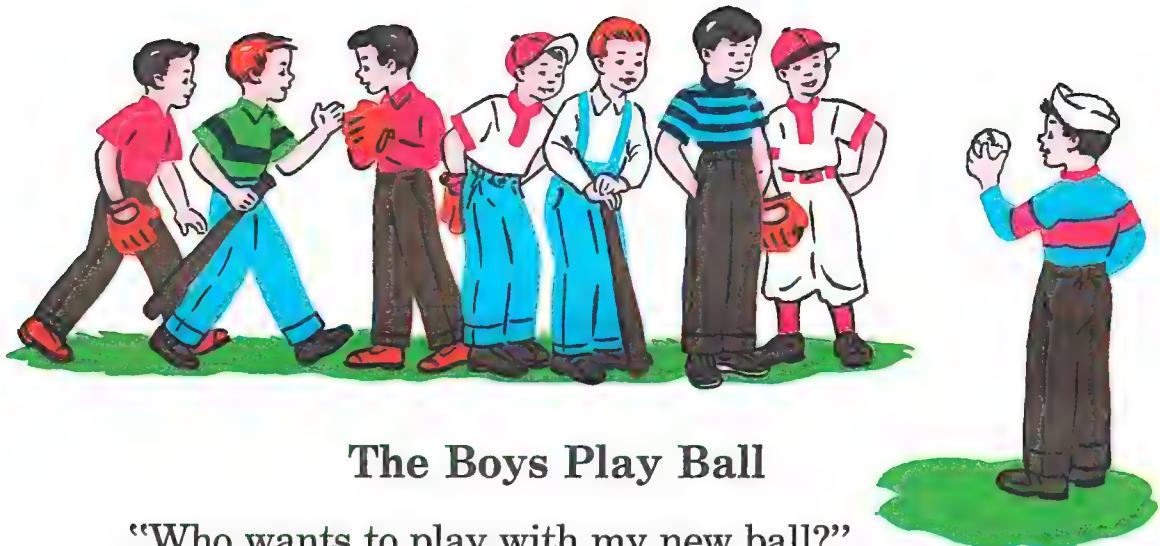
## Some New Signs for You

1. Are the boys and girls in the picture doing things that you like to do?
2. When would one of the children in the picture need money?
3. What time does the Post Office clock say?
4. Will any of the children use an **and** story? a **take away** story?
5. Why do we use signs when we write number stories?

Do you remember these signs?

- The sign + is used in an **and** story.
- The sign – is used in a **take away** story.
- The sign × is used in an **of** story.
- The sign = is used for the word **are**,  
for the word **leaves**, or for the  
word **equals**. It means **the same as**.

6. Write number stories about some of the things that the children in the picture are doing.



## The Boys Play Ball

"Who wants to play with my new ball?"  
called Jim.

1. How many boys will play with Jim?  
If all the boys play, can they have  
even teams? How?
2. What does **even** mean in numbers?
3. 8 boys are 2 groups of ? boys each.
4. What other number stories  
about 8 boys can you see in the picture?
5. 8 boys are 4 boys and ? boys.
6. 8 boys take away 4 boys leaves ? boys.
7. 8 boys = 7 boys + ? boy.
8. 8 boys are the same as 1 boy + ? boys.

$$9. \begin{array}{r} 4 \\ \times 2 \\ \hline \end{array} \quad \begin{array}{r} 2 \\ \times 4 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ + 4 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ + 1 \\ \hline \end{array} \quad \begin{array}{r} 1 \\ + 7 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 4 \\ \hline \end{array}$$



## Playing under the Trees

The girls like to play under the trees.

1. How many girls do you see?

How many groups of two girls are there?

2. 8 girls are 2 girls and 2 girls  
and 2 girls and ? girls.

8 girls are ? groups of 2 girls each.

Count the girls by twos.

3. 6 girls + ? girls = 8 girls.  $6 + 2 = ?$   
2 girls + ? girls = 8 girls.  $2 + 6 = ?$

4. Can you see a group of 5 girls  
and a group of 3 girls?

8 girls = 5 girls + ? girls.  $5 + 3 = ?$

8 girls = ? girls + 5 girls.  $3 + 5 = ?$

$$5. \quad 8 = 4 + ? \qquad 8 = 2 + ? \qquad 8 = 5 + ?$$

$$6. \quad 8 = 6 + ? \qquad 8 = 2 + 2 + 2 + ? \qquad 8 = 4 \times ?$$

$$7. \quad 8 = 2 \times ? \qquad 8 = 3 + ? \qquad 8 \times 1 = ?$$





## Playing Marbles

Jim likes to play marbles with Ann.

How many marbles are there in the ring?

Let's see who gets the most marbles out of the ring in one play.

1. Ann knocks only one out of the ring.

How many are left in the ring?

Tell a **take away** story about her turn.

2. Jim puts the 8 marbles in the ring for his turn. He knocks out 4 of them.

Can you tell Jim's **take away** story?

3. This time Ann has a good play.

What story do you see?

4. Tell the **take away** story that goes with each of these turns.

$$\begin{array}{r} 5. \quad 8 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ - 7 \\ \hline \end{array}$$

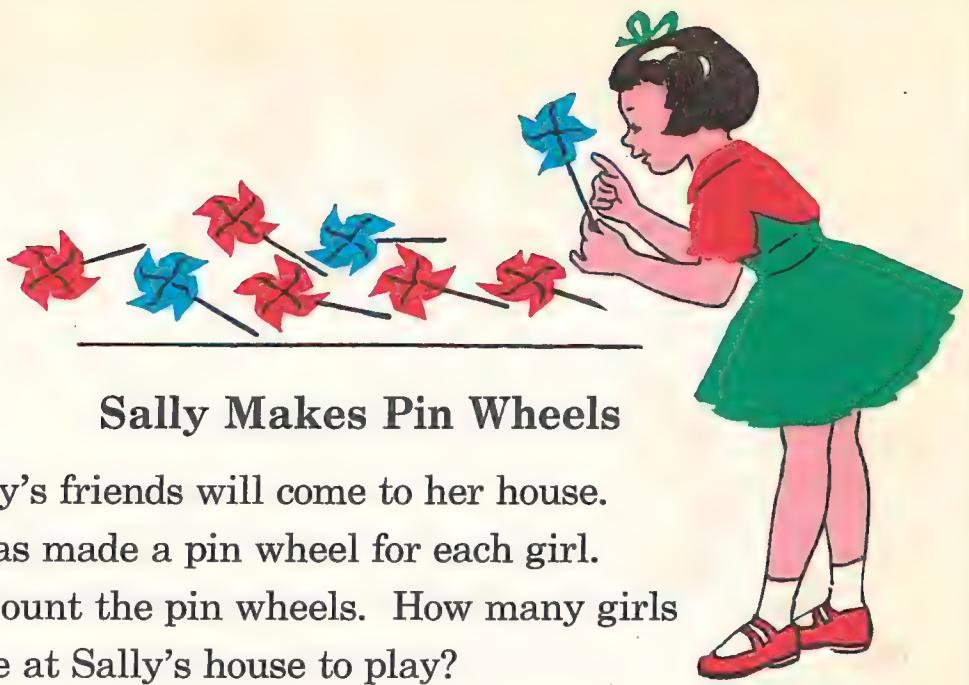
$$\begin{array}{r} 8 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ - 1 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ - 4 \\ \hline \end{array}$$



## Sally Makes Pin Wheels

Sally's friends will come to her house.  
She has made a pin wheel for each girl.

1. Count the pin wheels. How many girls  
will be at Sally's house to play?

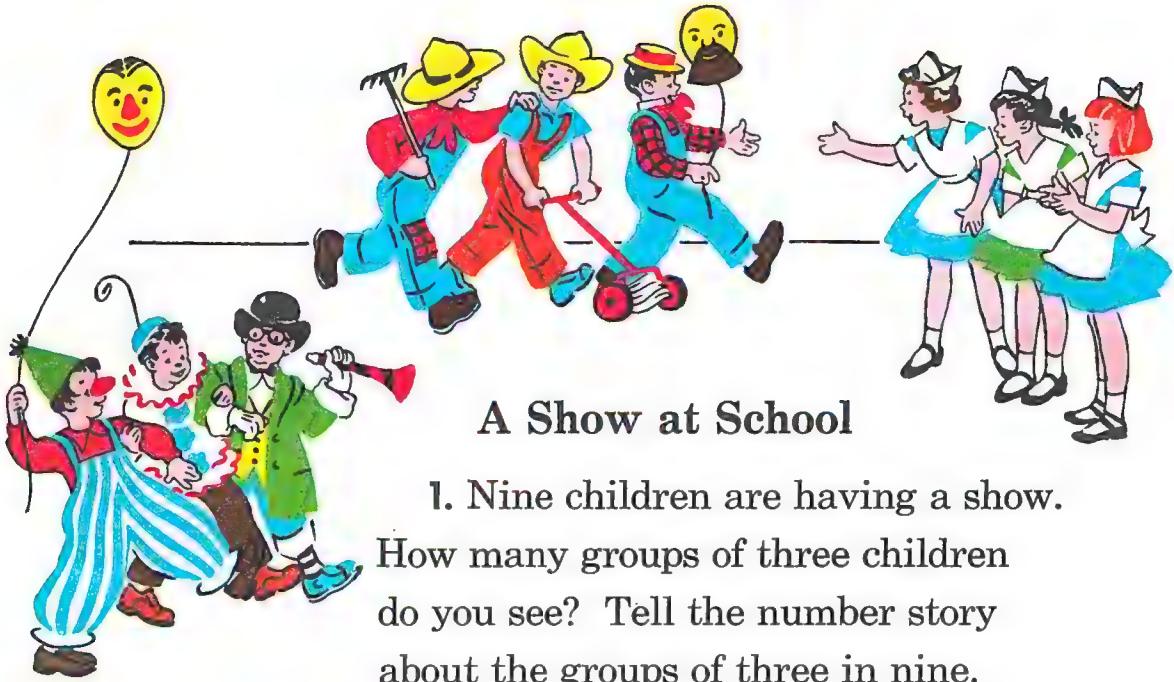
2. When Sally had made 6 pin wheels,  
how many more did she have to make  
to get 8 pin wheels?

3. Five girls took red pin wheels.  
Three girls took blue ones.  
How many of the eight did they take?

4. 6 is one of the 2 groups in 8.  
How many are in the other group?

5. How many more than 3 is 8?

6. Two ?'s = 8     $8 - ? = 4$      $4 \times ? = 8$      $8 - ? = 5$   
 $8 \times ? = 8$      $8 - ? = 7$      $8 - ? = 2$      $2 + ? = 8$   
 $4 + ? = 8$      $1 + ? = 8$      $5 + ? = 8$      $8 - ? = 6$



## A Show at School

1. Nine children are having a show.  
How many groups of three children  
do you see? Tell the number story  
about the groups of three in nine.
2. Count the children by groups of three.
3. What number story can you tell  
about the 6 boys and 3 girls?
4. When the clowns go away to dance,  
how many of the 9 children are left?  
What number story does that tell you?
5. 3 and 3 and ? are 9.       $3 + 3 + ? = 9$   
3 groups of ? each are 9.       $3 \times ? = 9$   
6 and ? are 9.       $6 + ? = 9$   
3 and ? are 9.       $3 + ? = 9$   
9 take away 6 are ?.       $9 - 6 = ?$   
9 take away 3 are ?.       $9 - 3 = ?$



## Fun with Stories

1. Jim has a story to read today.

How many children are in the group?

How many children besides Jim  
are in the group?



2. 9 children are ? children and 1 child.

Do we get the story  $1 + 8 = 9$ ? How?

3. How many girls are there?

How many boys? Tell two number stories  
about 5 boys and 4 girls.

4. How many children in the group  
are on the floor? Tell two number stories  
about the children in the chairs  
and the group on the floor.

$$9 = 4 + ?$$

$$9 = 7 + ?$$

$$9 = 8 + ?$$

$$4 + ? = 9$$

$$7 + ? = 9$$

$$8 + ? = 9$$

$$9 = 2 + ?$$

$$9 = 5 + ?$$

$$9 = 1 + ?$$

$$2 + ? = 9$$

$$5 + ? = 9$$

$$1 + ? = 9$$



## What Would You Buy at the Fair?

Jim has 9 cents to spend at the fair.

1. Does he have more than 5¢?

You know that ¢ is the sign for cents.

How much more than 5¢ does he have?

**9 take away 5 leaves ?.**  $9 - 5 = ?$

2. If he spends 7¢ for ice cream,  
how much of his 9¢ will he have left?

**9 take away 7 leaves ?.**  $9 - 7 = ?$

3. If he pays 8 cents for some marbles,  
how many cents will he have left?

**9 take away 8 leaves ?.**  $9 - 8 = ?$

4. Lollipops are 1¢ each. If he buys 1,  
he will have ? cents left.

**9 take away 1 leaves ?.**  $9 - 1 = ?$

5. 2 lollipops cost 2 cents. How much  
does he have left if he spends 2 cents?

**9 take away 2 leaves ?.**  $9 - 2 = ?$

6. He spends 4 cents for some peanuts.  
He has ? cents left.

**9 take away 4 leaves ?.**  $9 - 4 = ?$

## Buying Lollipops

Mary has 8 pennies.

Jim has 9 pennies.

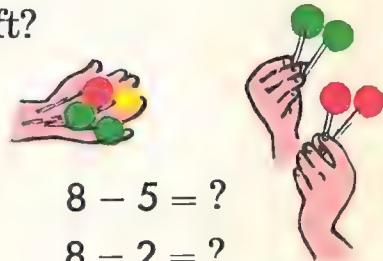


1. If a lollipop costs a penny, how many can Mary buy? How many can Jim buy?

2. How many lollipops is Mary giving to Ann? How many will she have left?

4 and 4 are ?. Two 4's are ?.

8 take away 4 is how many?



$$6 + 2 = ? \quad 8 - 3 = ? \quad 8 - 6 = ? \quad 8 - 5 = ?$$

$$5 + 3 = ? \quad 7 + 1 = ? \quad 8 - 1 = ? \quad 8 - 2 = ?$$

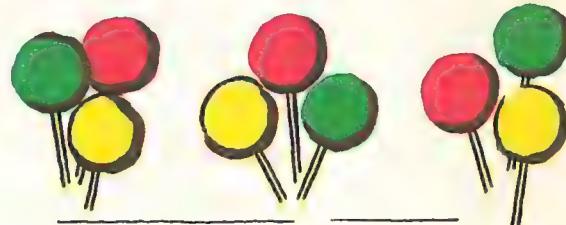
$$8 - 7 = ? \quad 1 \times 8 = ? \quad 2 + 6 = ? \quad \text{four 2's} = ?$$

$$2 \times 4 = ? \quad 3 + 5 = ? \quad 1 + 7 = ? \quad \text{eight 1's} = ?$$

3. Jim wants to share his candy with 2 friends.

3 and 3 and 3 are ?.

3 groups of 3 are ?.



$$5 + 4 = ? \quad 7 + 2 = ? \quad 6 + 3 = ? \quad 9 - 1 = ?$$

$$9 - 5 = ? \quad 3 \times 3 = ? \quad 9 - 4 = ? \quad 9 - 6 = ?$$

$$8 + 1 = ? \quad 9 \times 1 = ? \quad 9 - 2 = ? \quad 3 + 6 = ?$$

$$9 - 7 = ? \quad 1 \times 9 = ? \quad 9 - 3 = ? \quad 9 - 8 = ?$$



## Mary's Books

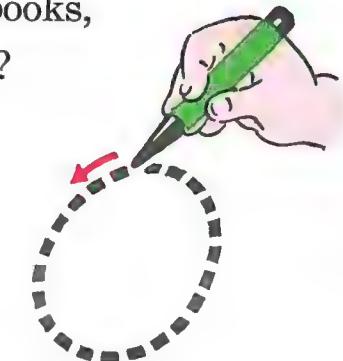
If Mary takes all of the books,  
there will be **none or not any** left.  
If she takes **not any** books,  
how many will be left?

Sometimes we need to write a figure  
to tell that there are none or not any.  
We write the figure for not any as 0.  
Its name is **zero**.

In the figures that tell **how many**,  
1, 2, 3, and so on, would 0 come  
before 1? Why?

Can you tell why these are right?

1. 2 books and not any books are 2 books.
2. 2 books and zero books are 2 books.
3. 2 books and 0 books are 2 books.
4. 2 books take away not any books  
leaves 2 books.
5. 2 books take away zero books  
leaves 2 books.
6. 2 books take away 0 books leaves 2 books.

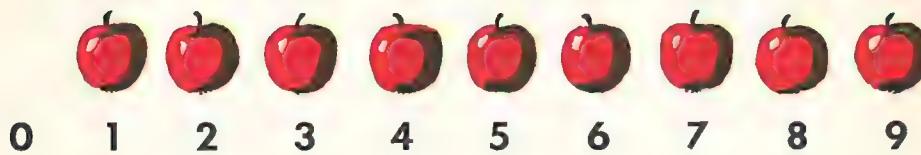


## We Count to Find How Many

Read the figures

Count the number of dots

0	zero	not any
1	one	1
2	two	2
3	three	3
4	four	4
5	five	5
6	six	6
7	seven	7
8	eight	8
9	nine	9



If you count these apples, one, two,  
three, four, and go on to seven,  
what does it mean when you say seven?  
Does it mean that you have one apple  
or a group of seven apples? Why?



## A Picture Show

Five children are showing pictures they have made to their friends.

Mary shows her picture **first**.  
Jim is next to Mary. He is **second**.  
Paul comes after Jim. He is **third**.  
Then comes Ann. She is **fourth**.  
Ron comes after Ann. He is **fifth**.

These are new kinds of numbers.  
They tell you the places of things  
in line. They can also tell you  
how many there are in a group.  
If you are fourth in line, you know  
that there are 3 children ahead of you.  
These 3 and you make a group of 4.  
If you are fifth and you are the last one  
in line, how many children are there  
in the group?

## Using New Words

When we put 5 things and 3 things  
together to tell how many,

$$\begin{array}{r} 5 \\ + 3 \\ \hline 8 \end{array}$$

we say that we are **adding**.  $5 + 3 = 8$

We **add** when we do **and** stories.

Add these:  $\begin{array}{ccccccc} 4 & 4 & 2 & 4 & 6 & 5 \\ + 3 & + 1 & + 7 & + 4 & + 3 & + 2 \\ \hline \end{array}$

When we take 3 things from 8 things  
to find how many are left, we **subtract**.

We **subtract** when we do **take away** stories.  $8$

**8 take away 5 leaves 3.**  $- 5$

**Subtract 5 from 8.**  $8 - 5 = 3$

**Your answer is 3.**

Subtract these:  $\begin{array}{ccccc} 8 & 5 & 7 & 9 & 6 \\ - 3 & - 2 & - 4 & - 6 & - 3 \\ \hline \end{array}$

**Of** stories are **times** stories.  $3$

**2 groups of 3 are 6** is a times story.  $\times 2$

**$2 \times 3 = 6$**  is another way of writing this.  $6$

We read a times story by saying  
the bottom figure first.

Do these times stories:  $\begin{array}{ccccc} 2 & 4 & 1 & 8 & 3 \\ \times 3 & \times 2 & \times 8 & \times 1 & \times 2 \\ \hline \end{array}$



## Some New Shapes for You

1. See the **circle** Ann has made.

Do you know what shape a circle has?

We call this shape **round**.

2. A ball is round, too.

Do we call a ball a circle? Why not?

What games do you play where you use  
the shape of a circle?



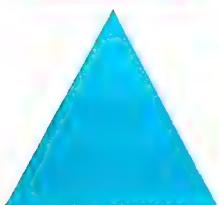
3. Look at this picture. Do you know  
what shape it has? We call it an **oblong**.  
What can you tell about the sides  
of an oblong?



4. Is this an oblong? Do you see  
that all of its sides are equal?  
We call this a **square**.



5. This is a **triangle**.  
How many sides does the triangle have?  
What can you think of that has  
the shape of a triangle?



6. Do you see any oblongs or squares  
or circles in your classroom? Where?

## What Is Jim's Surprise?

Mother has a surprise for Jim.  
She wants him to guess if it is  
in her **right** hand or in her **left** hand.



1. In which hand does Jim's mother have his surprise?
  2. Show your left hand. your right hand.
- Jim and Blackie have fun with the new ball.



"Come **here**, Blackie."      "Over **there**, Blackie."

3. What do the words **here** and **there** mean?
4. Where did Jim want Blackie to go  
when he said, "Come here"? "Over there"?

Jim is hungry after his game.

What does he have to eat?

5. We call this shape  a **cone**.  
Make a cone out of a piece of paper.
6. How is a cone not like a triangle?

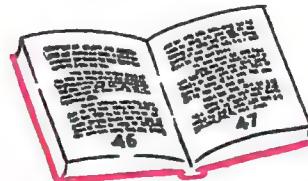




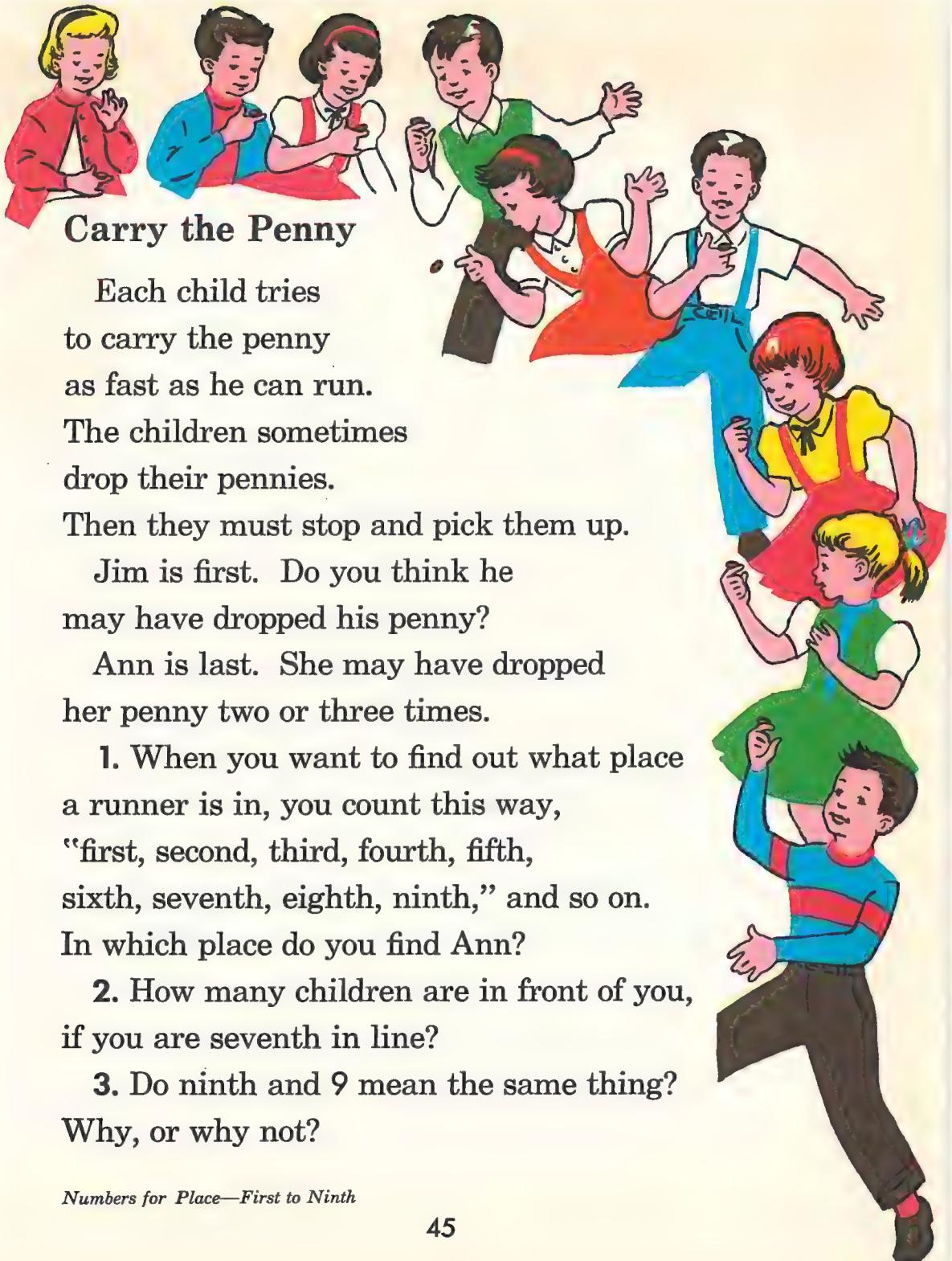
## Where Is Mary's House?

Sally and Ann want to find Mary's house.  
The number of Mary's house is one-two-eight.  
That is the way to read the number 128.

1. Which is Mary's house?
2. What is the number on the first house?  
on the second house?
3. When do you need to read big numbers?
4. Read these:



5. Read the number of this page  
of your book. Can you see how 45 tells you  
that it comes after 44?  
How do you know that 46 comes after 45?
6. Can you write the number five-eight?  
Write the number that comes after it.



## Carry the Penny

Each child tries  
to carry the penny  
as fast as he can run.

The children sometimes  
drop their pennies.

Then they must stop and pick them up.

Jim is first. Do you think he  
may have dropped his penny?

Ann is last. She may have dropped  
her penny two or three times.

1. When you want to find out what place  
a runner is in, you count this way,  
"first, second, third, fourth, fifth,  
sixth, seventh, eighth, ninth," and so on.  
In which place do you find Ann?

2. How many children are in front of you,  
if you are seventh in line?

3. Do ninth and 9 mean the same thing?  
Why, or why not?



## Quick Answers—Please

1. Bill had 9 cookies. His dog ate 3 of them. Does he still have 9 cookies? Why?

2. Bob is 8 years old. Are you older than he is? Tell how you know.

3. Do what the signs tell you to do:

$$\begin{array}{r} 2 \\ + 5 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ + 6 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ - 2 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ \times 3 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ \times 2 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ + 4 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ \times 2 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ + 1 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 2 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ + 0 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ + 1 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ + 5 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ + 2 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ + 2 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 2 \\ + 4 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ + 5 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 8 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 0 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ \times 8 \\ \hline \end{array} \quad \begin{array}{r} 2 \\ \times 4 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ \times 1 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 2 \\ \times 3 \\ \hline \end{array} \quad \begin{array}{r} 0 \\ + 6 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ + 4 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 1 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 1 \\ + 2 \\ \hline \end{array} \quad \begin{array}{r} 2 \\ + 7 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 2 \\ \hline \end{array} \quad \begin{array}{r} 1 \\ + 7 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ + 1 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ + 2 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ \times 1 \\ \hline \end{array} \quad \begin{array}{r} 2 \\ + 6 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 5 \\ + 3 \\ \hline \end{array} \quad \begin{array}{r} 0 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 5 \\ + 4 \\ \hline \end{array} \quad \begin{array}{r} 1 \\ + 8 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 1 \\ \hline \end{array} \quad \begin{array}{r} 5 \\ + 2 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ + 3 \\ \hline \end{array} \quad \begin{array}{r} 1 \\ \times 9 \\ \hline \end{array}$$



## Unit Test

1. Write the number that tells how many books are in the group.
2. Does the third book come after the sixth book? Why or why not?
3. Subtract these:

$$\begin{array}{r} 9 \\ - 2 \\ \hline 6 \end{array} \quad \begin{array}{r} 9 \\ - 0 \\ \hline 9 \end{array} \quad \begin{array}{r} 9 \\ - 3 \\ \hline 6 \end{array} \quad \begin{array}{r} 9 \\ - 7 \\ \hline 2 \end{array} \quad \begin{array}{r} 9 \\ - 1 \\ \hline 8 \end{array} \quad \begin{array}{r} 9 \\ - 4 \\ \hline 5 \end{array} \quad \begin{array}{r} 9 \\ - 8 \\ \hline 1 \end{array} \quad \begin{array}{r} 9 \\ - 5 \\ \hline 4 \end{array}$$

4. What does the sign - mean?  
What does the sign + mean?  
Write the sign that means **times**.  
Tell what the sign = means.

5. If Jim has 9 cookies and gives all but 2 away, how many does he give away?

6. Do these **times** stories:      3    ?    ?

$$\begin{array}{r} ? \\ \times 2 \\ \hline 6 \end{array} \quad \begin{array}{r} ? \\ \times 4 \\ \hline 8 \end{array}$$

7. Tell what the ? stands for:

$$\begin{array}{r} 4 \\ + ? \\ \hline 9 \end{array} \quad \begin{array}{r} 8 \\ - 4 \\ \hline ? \end{array} \quad \begin{array}{r} 8 \\ - ? \\ \hline 6 \end{array} \quad \begin{array}{r} 3 \\ + 6 \\ \hline ? \end{array} \quad \begin{array}{r} 4 \\ + 4 \\ \hline ? \end{array} \quad \begin{array}{r} 2 \\ + 7 \\ \hline ? \end{array} \quad \begin{array}{r} ? \\ + 3 \\ \hline 8 \end{array} \quad \begin{array}{r} 8 \\ - 1 \\ \hline ? \end{array} \quad \begin{array}{r} 8 \\ - 5 \\ \hline ? \end{array}$$

Unit 3

# Good Times at Home



## Counting Teens Numbers

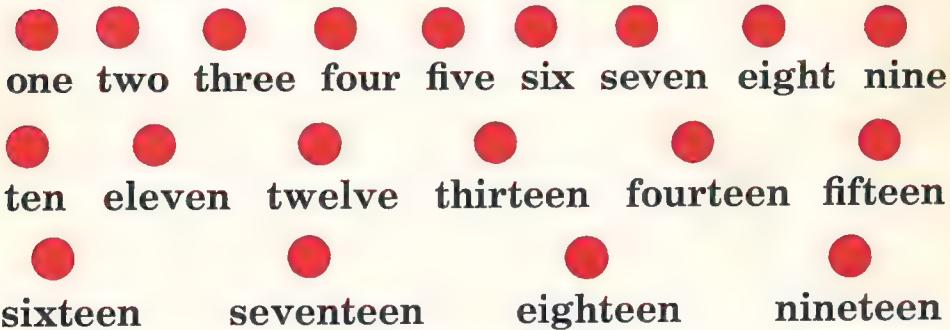
Many children like to play with dolls,  
as Sue is doing. Jack likes to play  
with planes and cars.

How do numbers come into these games?

Jack could count to nine. He had  
one more than nine planes.

His father told him that the number name  
for one more than nine is **ten**.

Can you read these number names?



When you say these number names to tell  
how many things you have, you are counting.

When you count things from ten  
up to nineteen, you say **teens** numbers.  
Counting tells you how many things  
there are in a group.



## Jack's Cars

Can you count Jack's cars?  
How many does he have in all?  
When you count his cars, ten,  
eleven, twelve, do you see one more  
each time you go from one number  
to the next one?

Look at the numbers  
and the number names  
for all of the teens:

10 ... ten	15 ... fifteen
11 ... eleven	16 ... sixteen
12 ... twelve	17 ... seventeen
13 ... thirteen	18 ... eighteen
14 ... fourteen	19 ... nineteen

Teens numbers have two figures in them.  
What figure do you find in every one?  
The numbers tell you how many. The 1  
in every number tells you that you first  
count a group of ten. The other figure  
tells you how many more than ten you have.

## Writing Teens Numbers

1. Look at the teens names on the other page.  
Do all of them tell you that they are teens?  
Which ones do not end in teen?
2. Count these dots:



Do you get fifteen? See if you have  
five more than a group of ten.

3. Write the number for the group of ten.
4. Write the number for fifteen.
5. How does the number 15 tell you  
that it is 10 and 5?
6. Does each teens number show  
that it has a part that is 10? How?
7. What does the **1 on the left**  
in a teens number mean?
8. What does the figure **on the right**  
of 1 in a teens number mean?
9. How does the zero in 10 say  
that there is a group of ten and no more?

## In the Garden

See all the things that Jack and his father picked from their garden.

1. Count the heads of lettuce.

Say each number name as you count.  
How many are there in all?

2. Count the ears of corn.

How many are there?

3. Has Jack put twelve potatoes in the boxes for Grandma?

Why does twelve equal ten and two?

4. Do you see thirteen onions here?

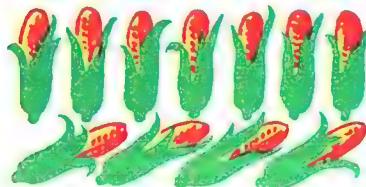
Did you count three more than ten?

5. Count the carrots.

How many are there?

How many more than ten is fourteen?

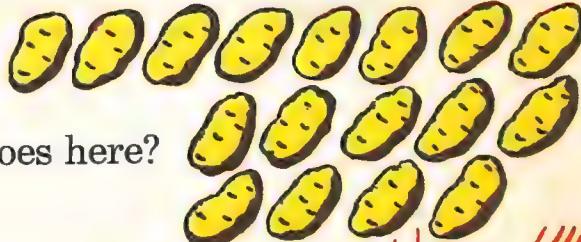
6. How many apples are there in all? Fifteen apples are ? more than ten apples.



**7.** Can you count sixteen pumpkins?  
Say each number name as you count.  
Are there six things in sixteen things?  
How many more than six?



**8.** Jack said he had  
seventeen potatoes.  
Are there seventeen potatoes here?  
How do you know?



**9.** Here are carrots for Grandma.  
What number name tells  
how many there are?



**10.** These pears are for Grandma.  
Jack said there were nineteen pears.  
Was he right?



**11.** How many more than ten potatoes  
did Jack have?

**12.** Eighteen is how many more  
than ten?

**13.** Why do you think that  
the word nineteen says  
ten more than nine?



## Flowers from the Garden

Mother and Sue have picked  
many flowers from their garden.

1. Do they have **more** white flowers or  
yellow flowers? How do you know?  
What does **more** mean?

2. Which group has the **most** flowers in it?
3. You see a **few** white flowers.

Are there **fewer** white than blue ones?  
What does **fewest** mean?

4. Which flower is a **big** one?  
Is it the **biggest** one here?
5. Which flowers do you see that are  
**bigger** than the red ones?

6. The blue flowers are **small**.  
Are they the **smallest** ones? Which ones  
are **smaller** than the yellow one?

## Sue Plays with Jacks

1. How many jacks does Sue have?  
How many jacks will it be easy for her  
to pick up at one time?

2. Sue has 9 jacks. She picks up 4 jacks.  
How many jacks are left?

3. If her jacks look like this picture,  
how many can she pick up at one time?

4. Sue has 9 jacks. She picks up 2  
of them. She has ? jacks left.

Write the number story.

5. Sue plays with 7 jacks this time.  
She picks up 4 jacks. How many are left?

6. If Sue has groups of jacks  
like these number stories tell, how many  
does she play with each time?

$2 + 3 = ?$

$5 + 3 = ?$

$3 + 6 = ?$

$5 + 4 = ?$

$4 + 3 = ?$

$2 + 7 = ?$

$4 + 4 = ?$

$5 + 1 = ?$

$6 + 2 = ?$

$2 + 2 = ?$

$1 + 6 = ?$

$2 + 5 = ?$

$3 + 3 = ?$

$6 + 3 = ?$

$4 + 2 = ?$

$7 + 1 = ?$





## Making Paper Dolls

See Sue's paper dolls!

1. How many has she colored blue?

How many has she colored red?

2. You can count all of the dolls one at a time: one, two, three, four, and so on. How many dolls are there?



3. Sue cut two dolls together. It is easy to count them by twos. How do you count them by twos?

4. Do we have the same number in all when we count by ones or by twos?



5. Why do we sometimes count by twos?

6. When we count by twos, do we ever use the teens number names? When?

7. Count all Sue's paper dolls by twos.

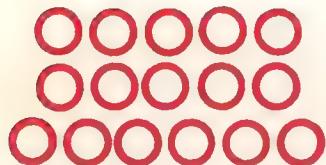
Count the red and the yellow dolls by twos.

Count the blue and the red dolls by twos.



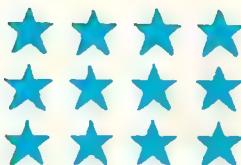
## Jack Must Know These

sixteen rings



16 rings

twelve stars



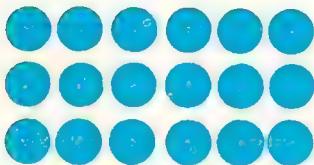
12 stars

fifteen boxes

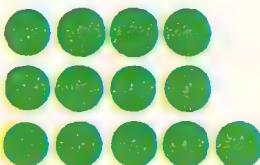


15 boxes

Are these the right numbers?



Are there 18?



Are there 13?



Are there 17?

Tell the number names for these numbers:

14, 10, 8, 19, 11, 16, 12, 9, 18

5, 15, 13, 1, 7, 3, 17, 2, 6, 4

Write the numbers for these number names:

fourteen

fifteen

ten

nineteen

eleven

seventeen

twelve

sixteen

thirteen

eight

five

eighteen

## Jack's Pennies

Count Jack's pennies:



We can use a dime for 10 pennies.

When we use 1 thing for 10 things,  
like a dime for 10 pennies, we call  
the 1 a **ten**. A dime is a ten.

Remember that we have a ten only  
when 1 thing stands for 10 things.

Did you get 16 pennies (16 cents)  
when you counted Jack's money?

16 cents can be all ones. 16 cents can be  
1 ten and 6 ones. How?

When we count 18 things one at a time,  
we can think 10 ones and 8 ones.

But, when we write 18, we see only  
1 ten and 8 ones. Why?

Do you see that we have a **tens place**  
and a **ones place** in all teens numbers?

## Knowing the Places in Teens Numbers

Where is tens place in a teens number?

Where is ones place in a teens number?

1. 15 is 10 ones and 5 ones. Why?

15 is 1 ten and 5 ones. Why?

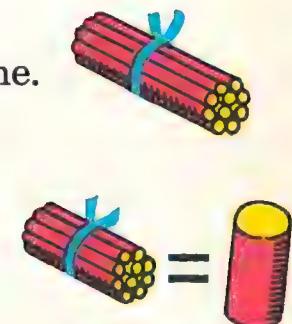
14 is ? ones and 4 ones.

$18 = ?$  ten and ? ones.

We know that 10 pennies are not a dime.

The 10 ones in this bundle are like the 10 pennies. They are not a ten.

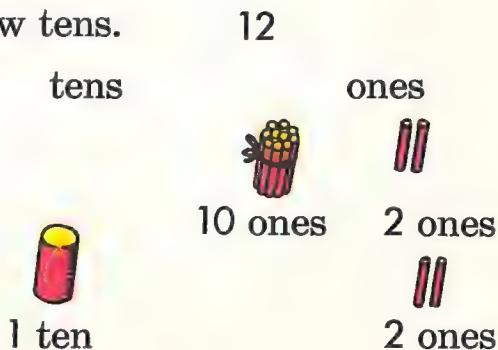
To show 1 ten with counters, we must use 1 counter to equal 10 ones.



2. When we use counters to show tens place and ones place, we must use a tens counter in tens place. Of course we cannot use ones counters to show tens.

Why not?

See how we make the picture look like a teens number.





one two three four five six seven eight nine ten

## How Well Have You Learned?

1. When you are counting things  
and come to ten, what do you mean?  
Can you mean one more than nine things?

2. When you have said fifteen  
in counting things, how many more  
than 10 things have you counted?

3. What does less mean?



4. How much less than 18 is 10?

5. How much less than 17 is 7?

6. What figure is in tens place in 12?



7. 19 is how many more than 9?

8. Which is tens place in a teens number?

9. Which is ones place in a teens number?

10. Ten ones and ? ones are thirteen ones.

11. Ten is six less than ?.

12. Twelve is 1 ten and ? ones.

13. Count by twos to sixteen.

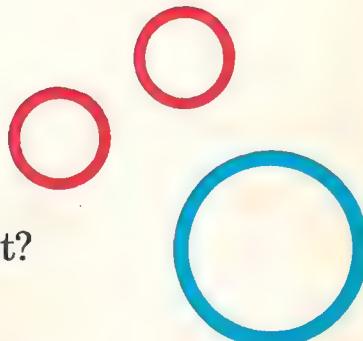


## Unit Test

1. Find a group of ten candy sticks in this picture.
2. Is ten a teens number?
3. Sixteen take away ten are ?.
4. Which figure is in tens place in 19?
5. Ten and four are ?.
6. In teens numbers, the tens place is on the left of the ? place.
7. Which is more, 19 or 16? Why?
8. Which is less, 14 or 12? Why?
9. Find the teens numbers.

Tell their names:

8,    15,    11,    18,    7,  
2,    12,    19,    6,    10



10. Is the blue circle the biggest?
11. Are there fewer in a group of eighteen or in a group of fifteen?
12. Count by twos to 18.

## Unit 4

# Fun with Our Friends



## At the Park

See all of the children at the park.

**1.** How much money must each child have if he wants to buy ice cream?

How do you know?

**2.** If each child near the wagon gives the ice cream man a dime, how many dimes will he get?

**3.** Are there as many as 10 children near the swings?

**4.** Ten boys want to play a game. Can they have the same number of boys on each team?

**5.** Where are there 2 groups of 5 boys in the picture?

**6.** Can you find 10 on a clock face?

**7.** How many do you count after 5 to get 10?

**8.** How many fingers do you have? How many toes?



## The Ice Cream Man

Ruth and Dan want  
the ice cream man to come.  
Dan has his dime ready.

1. Ruth is getting her pennies.

How many pennies does she need?

2. Does Dan have as much money as Ruth?

3. We use two figures when we write  
ten, a 1 and a 0. Why can't we write ten  
with just the figure 1?

4. What does the zero tell us in 10? the one?

Here is a picture about 10 ones and 1 ten:

tens

ones



10 pennies



not any pennies



10 ones



not any ones

Here are 10 pennies.

They are 10 ones.

1 dime is 1 ten.

Here we have 10 ones.

Here we have 1 ten.



## Why Do We Use Two Figures?

Many years ago people did not write numbers as we do. They used their fingers, sticks, and things to tell how many.

We know that numbers tell us how many.

1. What does zero mean? How does it help us to write numbers?

2. What teens number has a zero in it?

3. What is the largest teens number?

The number after nineteen is **twenty**.

19 is 1 ten and 9 ones. When we write twenty, we write 2 tens and 0 ones, or **20**.

4. How many groups of 10 do you count to get 20?

5. Do 2 dimes make 20 cents? Why?

6. How can you tell by looking at 20 that it has 2 tens?



## Playing the Marching Game

1. How many children are marching? 5
2. What and stories can you make about 2 groups of 5 children?  $\begin{array}{r} + 5 \\ \hline 10 \end{array}$   
**10 children are 5 children and 5 children.**  $5 + 5 = 10$
3. How do and stories help you to see of stories about 10?  $\begin{array}{r} \times 2 \\ \hline 10 \end{array}$   
**2  $\times$  5 = 10**  
**Two 5's = 10**
4. If 5 children go home, how many are left?  $\begin{array}{r} - 5 \\ \hline 5 \end{array}$   
**10 children take away**  $10 - 5 = 5$   
**5 children leaves 5 children.**
5. How many groups of 2 children each can you see in 10 children?  $\begin{array}{r} \times 5 \\ \hline 10 \end{array}$   
 **$5 \times 2 = 10$**     **2**     $\begin{array}{r} + 2 \\ \hline 10 \end{array}$   
 **$2 + 2 + 2 + 2 + 2 = 10$**     **Five 2's = 10**



## At the Airport

One day Dan and Roy went to see  
the airplanes at the airport.



1. How many airplanes do you see?

How many are on the ground?

How many are in the air?

2. How many groups of 5 do you see  
in the 10 airplanes?

3. Two pilots are going to each airplane  
on the ground. We can call two people  
a **couple** or a **pair**. There are ? pairs  
of pilots going to the five airplanes.

4. How many groups of 2 are there in 10?

5. The boys have to pay 10 cents each  
to go into an airplane. Tell why  
they can pay 10 cents in all of these ways.

10 pennies

5 pennies and 5 more pennies

2 nickels

1 dime

1 nickel and 5 pennies

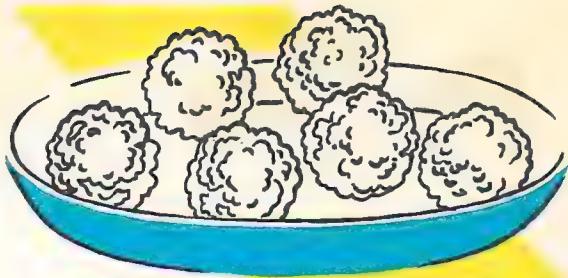


## Making Popcorn Balls

What do you think is cooking  
on the stove? What are the children doing  
with the popcorn?

1. Can you see 10 children?  
How many are in each group?
2. How many plates are on the table?
3. What other groups can you find  
in the picture that make 10?

**4.** How many popcorn balls are ready to eat?

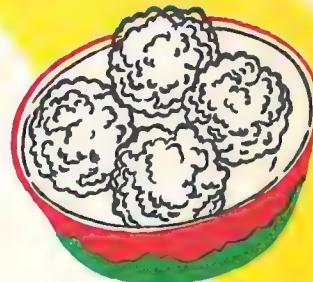


**5.** How many are in the big pan?  
How many are in the small pan?

**6.** What number stories about 10 do the 2 pans of balls tell?

**10 balls are 6 balls and 4 balls.**

**10 balls are 4 balls and 6 balls.**



$$6 + 4 = 10$$

$$4 + 6 = 10$$

$$\begin{array}{r} 6 & 4 \\ + 4 & + 6 \\ \hline 10 & 10 \end{array}$$

**7.** If the children eat the balls in the little pan, how many are left?

**10 balls take away 4 balls leaves 6 balls.**

**10 balls take away 6 balls leaves 4 balls.**

$$10 - 4 = 6$$

$$10 - 6 = 4$$

$$\begin{array}{r} 10 & 10 \\ - 4 & - 6 \\ \hline 6 & 4 \end{array}$$

**8.** What is 4 less than 10? 6 less than 10?

**9.** 10 is ? more than 6. 10 is 6 more than ?.



## Working Together

Ruth, Dan, and Roy like to work together making popcorn balls.

1. How many balls are in the pan? There are ? big ones and ? little ones.

**10 balls are 7 balls and 3 balls.**

**10 balls are 3 balls and 7 balls.**

2. Do you see these and stories?

$$7 + 3 = 10 \qquad 3 + 7 = 10$$

$$\begin{array}{r} 7 & 3 \\ + 3 & + 7 \\ \hline 10 & 10 \end{array}$$

3. If 3 children each eat a little ball, how many will be left?

If they put the 7 big balls on a plate before they eat the little ones, how many will be left in the pan?

**10 balls take away 3 balls leaves 7 balls.**

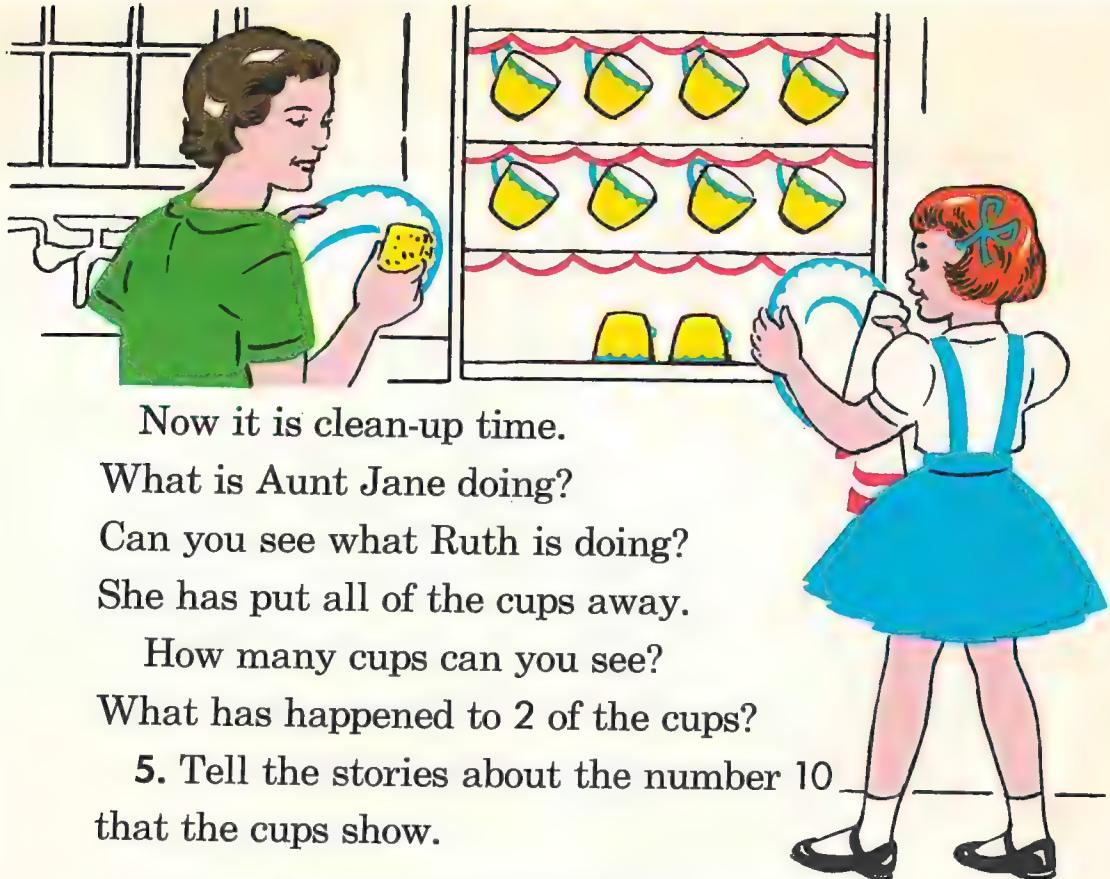
**10 balls take away 7 balls leaves 3 balls.**

4. Do you see these take-away stories?

$$10 - 3 = 7$$

$$10 - 7 = 3$$

$$\begin{array}{r} 10 & 10 \\ - 3 & - 7 \\ \hline 7 & 3 \end{array}$$



Now it is clean-up time.  
 What is Aunt Jane doing?  
 Can you see what Ruth is doing?  
 She has put all of the cups away.  
 How many cups can you see?  
 What has happened to 2 of the cups?

5. Tell the stories about the number 10  
 that the cups show.

**10 cups are 8 cups and 2 cups.**

**10 cups are 2 cups and 8 cups.**

$$8 + 2 = 10$$

$$2 + 8 = 10$$

$$\begin{array}{r}
 8 & 2 \\
 + 2 & + 8 \\
 \hline
 10 & 10
 \end{array}$$

**10 cups take away 8 cups leaves 2 cups.**

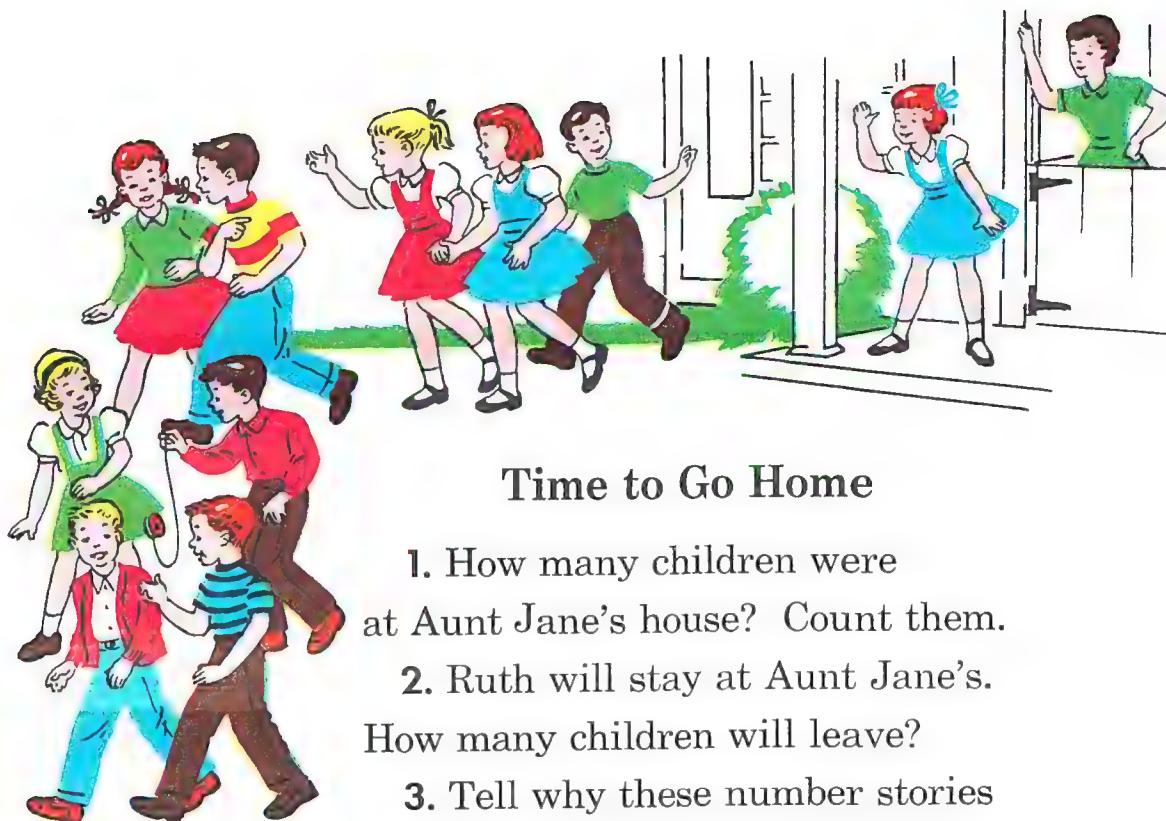
**10 cups take away 2 cups leaves 8 cups.**

$$10 - 8 = 2$$

$$10 - 2 = 8$$

$$\begin{array}{r}
 10 & 10 \\
 - 8 & - 2 \\
 \hline
 2 & 8
 \end{array}$$

6. 10 is ? more than 8. 2 is ? less than 10.



## Time to Go Home

1. How many children were at Aunt Jane's house? Count them.
2. Ruth will stay at Aunt Jane's. How many children will leave?
3. Tell why these number stories are right:

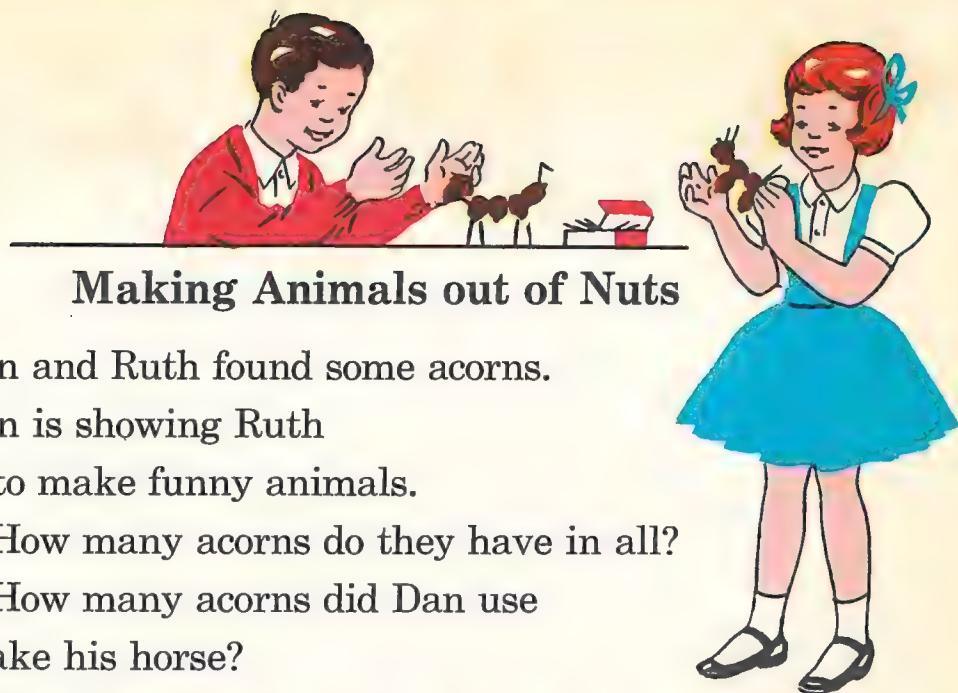
$$\begin{array}{r} \mathbf{9 + 1 = 10} \\ \mathbf{1 + 9 = 10} \end{array}$$

$$\begin{array}{r} \mathbf{9} & \mathbf{1} \\ + 1 & + 9 \\ \hline \mathbf{10} & \mathbf{10} \end{array}$$

$$\begin{array}{r} \mathbf{10 - 9 = 1} \\ \mathbf{10 - 1 = 9} \end{array}$$

$$\begin{array}{r} \mathbf{10} & \mathbf{10} \\ - 9 & - 1 \\ \hline \mathbf{1} & \mathbf{9} \end{array}$$

4. Bill walks 1 block up Main Street. Then he walks 9 blocks on Oak Street to his house. How many blocks in all does he walk to get to his house?
5. When he has walked 9 blocks, how many more does he have to go?

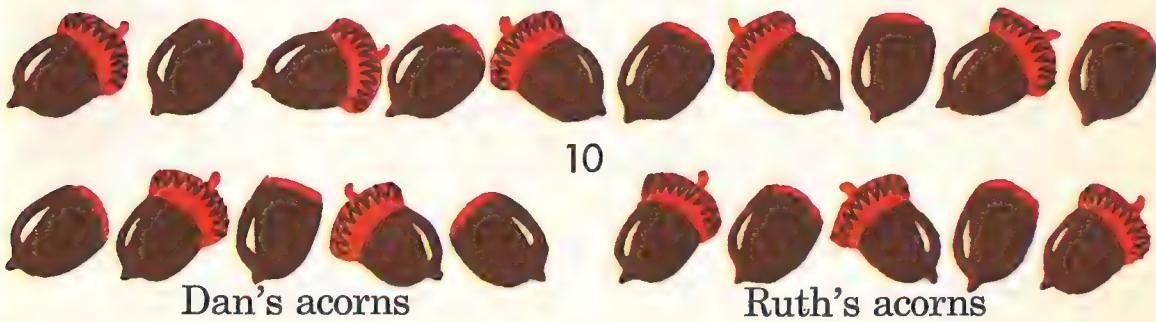


## Making Animals out of Nuts

Dan and Ruth found some acorns.

Dan is showing Ruth  
how to make funny animals.

1. How many acorns do they have in all?
2. How many acorns did Dan use  
to make his horse?
3. Tell this number story:



4. If Dan gives one of his acorns to Ruth,  
what is the number story about 10 acorns?

5. What other stories  
about 10 acorns  
do you see here?





## How Good Is Your Thinking?

1. Which pictures show things in pairs?
2. Alice helped her mother every day for a week. How many times did she help her mother in one week? Why?
3. Do you add or subtract when you have an **and** story?
4. How much less than 10 is 7?
5. One ten and ? ones make sixteen.
6. Tell another **and** story with the same answer as 5 and 5.
7. Eight is two more than six.  
What is two more than eight?
8. Sally is third and Ben is fifth in line. Will Sally jump before Ben in a jumping game? Tell how you know.
9. Are 2 nickels, or 2 dimes, or 2 pennies the most money? Why?



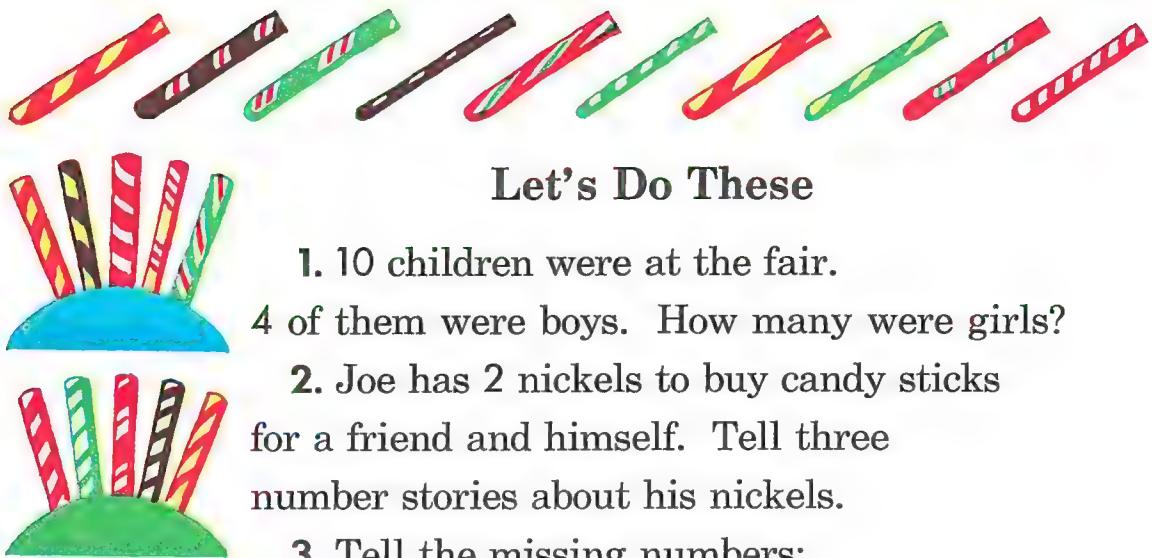


## Dogs Are Good Friends

Dan, Roy, and Ted  
are playing with their pets.



1. Where is a dog with a **short** tail?  
Which dog has a **long** tail?
2. Does the big dog have a **longer**  
or a **shorter** tail than the little dog?
3. Is there a **tall** and a **short** boy  
in the group? Will you always have  
a **taller** and a **shorter** boy in a group  
of 3 boys?
4. Which boy is the **tallest**? the **shortest**?
5. Do you like the dog  
with the **longest** ears best? Where is he?
6. Would you like to have the dog  
with the **shortest** ears for a pet?  
Where is he?



## Let's Do These

1. 10 children were at the fair.  
4 of them were boys. How many were girls?
2. Joe has 2 nickels to buy candy sticks  
for a friend and himself. Tell three  
number stories about his nickels.
3. Tell the missing numbers:

$$\begin{array}{r}
 5 & 10 & 4 & 1 & 5 & 10 & 10 & 8 \\
 + ? & - 1 & + ? & + ? & \times ? & - ? & - 3 & + ? \\
 \hline
 10 & ? & 10 & 10 & 10 & 5 & ? & 10
 \end{array}$$

$$\begin{array}{r}
 7 & 10 & 10 & 6 & 3 & 2 & 10 & 9 \\
 + ? & - 9 & - 8 & + ? & + ? & \times 5 & - 4 & + ? \\
 \hline
 10 & ? & ? & 10 & 10 & ? & ? & 10
 \end{array}$$

$$\begin{array}{r}
 2 & 10 & 10 & 10 & 10 & \text{Two } 5\text{'s} = ? \\
 + ? & - 6 & - ? & - ? & - ? & \\
 \hline
 10 & ? & 9 & 3 & 8 & \text{Five } 2\text{'s} = ?
 \end{array}$$

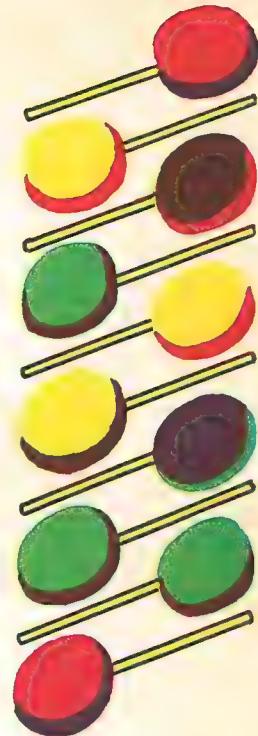
4. Is 20 more than a teens number?  
Tell how you know.
5. 10 is ? less than 19. 10 is ? more than 8.
6. How many groups of 10 are in 20?  
How do you know?

## Unit Test

1. How many candy sticks can you buy for 10¢ at 2¢ each?
2. Sally's doll has 10 dresses. 3 of them are new. How many are not new?
3. Jack has 10 lollipops for 5 boys. How many can each boy have?
4. Grandpa gave Alice some pennies. She put 8 in her bank and had 2 to spend. She had ? pennies in all.
5. Mother needs 5 eggs to make a cake for the boys. 10 eggs are in the box. Does she need to buy more eggs? How do you know?
6. Finish these number stories:

$$\begin{array}{r} 3 \\ + 7 \\ \hline ? \end{array} \quad \begin{array}{r} 4 \\ + 6 \\ \hline ? \end{array} \quad \begin{array}{r} 2 \\ + ? \\ \hline 10 \end{array} \quad \begin{array}{r} 7 \\ + ? \\ \hline 10 \end{array} \quad \begin{array}{r} 1 \\ + ? \\ \hline 10 \end{array} \quad \begin{array}{r} 8 \\ + ? \\ \hline 10 \end{array} \quad \begin{array}{r} 5 \\ + 5 \\ \hline ? \end{array} \quad \begin{array}{r} 10 \\ - 7 \\ \hline ? \end{array}$$

$$\begin{array}{r} 10 \\ - 8 \\ \hline ? \end{array} \quad \begin{array}{r} 9 \\ + ? \\ \hline 10 \end{array} \quad \begin{array}{r} 6 \\ + 4 \\ \hline ? \end{array} \quad \begin{array}{r} 2 \\ \times 5 \\ \hline ? \end{array} \quad \begin{array}{r} ? \\ - 4 \\ \hline 6 \end{array} \quad \begin{array}{r} 5 \\ \times 2 \\ \hline ? \end{array} \quad \begin{array}{r} 10 \\ - ? \\ \hline 8 \end{array} \quad \begin{array}{r} ? \\ - 1 \\ \hline 9 \end{array}$$



## Unit 5

# Busy Days on the Farm

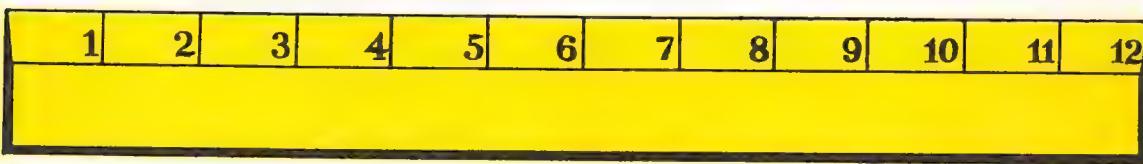


## Fred Is a Farm Boy

Have you ever been to a farm?  
Have you ever lived on a farm?  
The picture on the other page  
shows part of the farm where Fred lives.  
He has some rabbits that are all his own.

Fred needs some place to put  
his little rabbits. They should not be  
with the mother rabbit when they get big.

1. How many small rabbits do you see?
- What is Fred going to do for them?
2. Does Fred need to know that  
 $12 \text{ inches} = 1 \text{ foot}$ ? How could he measure  
16 inches using his foot ruler?

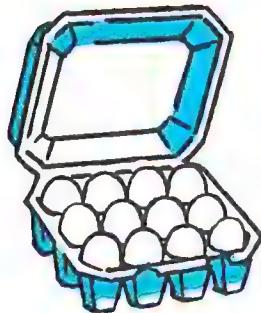


3. Count the inches on this ruler.
4. How many more than 10 did you count?
5. How many more than 12 make 16?

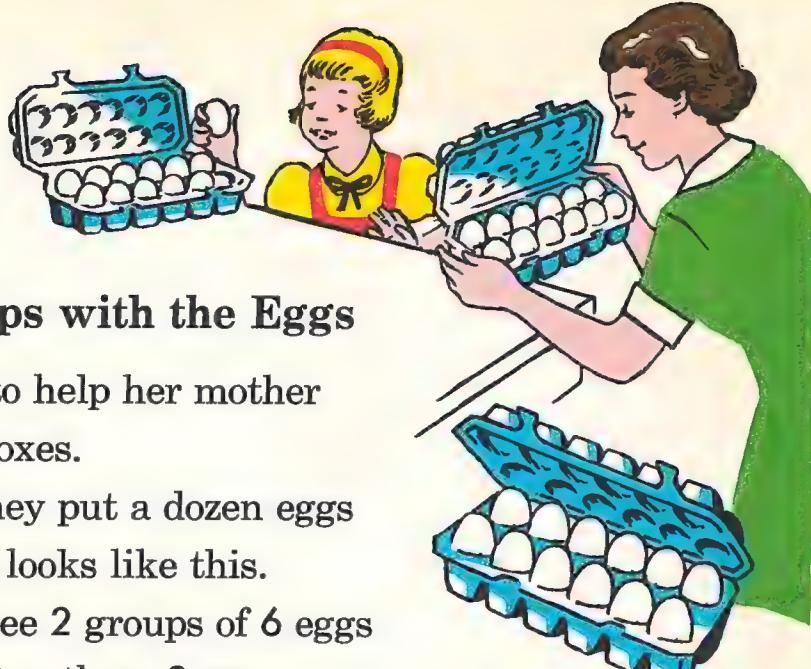


## The Farm Stand

Fred's father has a little stand  
on his farm. His mother likes  
to make things to sell at the stand.  
What do they have to sell today?



1. How many cupcakes do you see?
2. How many cookies are in the box?
3. Here are a **dozen** eggs. Count them.  
How many things are in a dozen?  
4. If you buy a dozen eggs,  
do you need to count the eggs?  
How do you know when you have a dozen?
5. What other things in the picture  
do you buy by the dozen?
6. What do you see in the picture  
that you can count by twos? by threes?



## Nan Helps with the Eggs

Nan likes to help her mother put eggs in boxes.

Sometimes they put a dozen eggs in a box that looks like this.

1. Do you see 2 groups of 6 eggs in the box? Are there 2 ways of seeing the groups? Tell how.

$$12 = 6 + 6$$

$$6 + 6 = 12$$

$$2 \times 6 = 12$$

$$\text{Two } 6\text{'s} = 12$$

$$\begin{array}{r}
 6 & 6 \\
 + 6 & \times 2 \\
 \hline
 12 & 12
 \end{array}$$

2. If Nan takes 6 eggs out of the box, how many will be left?

$$12$$

$$- 6$$

$$6$$

3. 12 take away 6 leaves ?.  $12 - 6 = 6$

4. Show how you can get two 6's out of  $10 + 2$ .

5. How many groups of 6 eggs are in 12 eggs?



## Watch Out, Fred! Your Candy!

See what happened  
to Fred's candy!  
Fred had a dozen  
candy balls in a bag.  
How many things  
are there in a dozen?



1. How many red balls do you see?

How many black balls are there?

What number story about 12 things  
do these two groups make?  $6 + 6 = ?$

2. How many groups  
of 2 balls each do you see?

3. You know from counting  
that you get 12 things  
when you have 2 things  $+ 6$   
more than 10 things.

4. How can you get  $10 + 2$  from  $6 + 6$ ?

5. Find six 2's by using  $12 = 10 + 2$ .

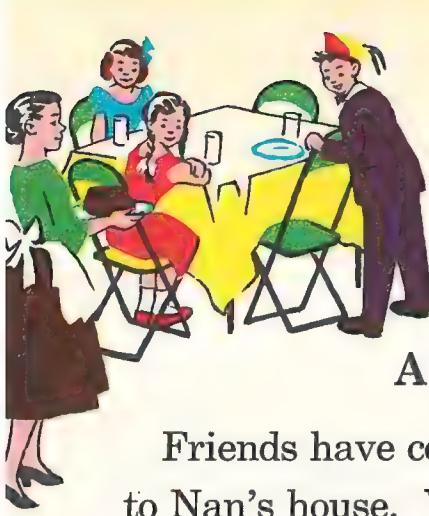
6. Find six 2's by using  $12 = 6 + 4 + 2$ .



$$\begin{array}{r} 6 \times 2 = 12 \\ \text{Six } 2\text{'s} = 12 \end{array} \quad \begin{array}{r} 2 \\ \times 6 \\ \hline 12 \end{array}$$



$$\begin{array}{r} 6 + 4 = 10 \\ \boxed{\text{blue dots}} \quad \boxed{\text{black dots}} \\ 10 + 2 = 12 \end{array}$$



Friends have come  
to Nan's house. What fun!

1. How many people  
are there to sit at 3 tables?
2. If 12 people are in 3 equal groups,  
how many are in each group?

$$4 + 4 + 4 = 12$$

$$3 \times 4 = 12$$

$$\text{Three } 4\text{'s} = 12$$

$$\begin{array}{r} 4 \\ 4 \quad 4 \\ + 4 \quad \times 3 \\ \hline 12 \quad 12 \end{array}$$

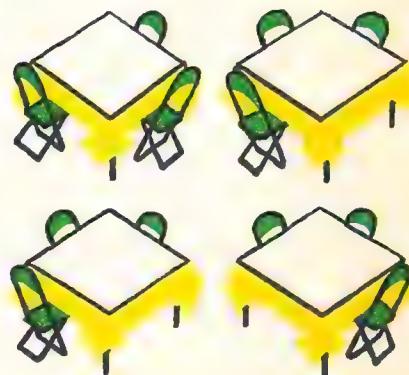
3. If 12 people want to sit  
in equal groups at 4 tables,  
how many will be at each table?

$$3 + 3 + 3 + 3 = 12$$

$$4 \times 3 = 12$$

$$\text{Four } 3\text{'s} = 12$$

$$\begin{array}{r} 3 \\ 3 \quad 3 \\ + 3 \quad \times 4 \\ \hline 12 \quad 12 \end{array}$$



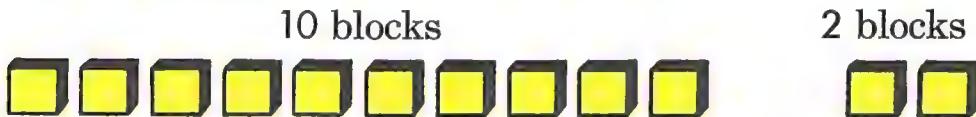
## Can You Do These?

1. Finish these stories about 12.

$$\begin{array}{r} 3 \\ \times 4 \\ \hline ? \end{array} \quad \begin{array}{r} 6 \\ + ? \\ \hline 12 \end{array} \quad \begin{array}{r} ? \\ \times 3 \\ \hline 12 \end{array} \quad \begin{array}{r} 12 \\ - ? \\ \hline 6 \end{array} \quad \begin{array}{r} ? \\ \times 2 \\ \hline 12 \end{array} \quad \begin{array}{r} 4 \\ \times ? \\ \hline 12 \end{array} \quad \begin{array}{r} 2 \\ \times ? \\ \hline 12 \end{array} \quad \begin{array}{r} ? \\ - 6 \\ \hline 6 \end{array} \quad \begin{array}{r} 6 \\ \times ? \\ \hline 12 \end{array}$$

2. Which of these stories are  
of or times stories? and stories?  
take away stories?

3. You know that 12 is 10 and 2.  
How will that story help us to know  
that there are six 2's in 12?



4. Look at the 12 blocks. Try to see  
the following groups in the 10 blocks  
and the 2 blocks.

12 blocks are 5 blocks and 5 blocks and 2 blocks.

12 blocks are 9 blocks and 1 block and 2 blocks.

We can write number stories     $\begin{array}{r} 3 \\ 7 \\ \hline ? \end{array}$      $\begin{array}{r} 2 \\ 8 \\ \hline ? \end{array}$      $\begin{array}{r} 2 \\ 6 \\ \hline ? \end{array}$      $\begin{array}{r} 1 \\ 9 \\ \hline ? \end{array}$   
with groups like these. Find     $\begin{array}{r} + 2 \\ \hline 12 \end{array}$      $\begin{array}{r} + 2 \\ \hline 12 \end{array}$      $\begin{array}{r} + 4 \\ \hline ? \end{array}$      $\begin{array}{r} + 2 \\ \hline ? \end{array}$   
10 and 2 in each one of them.



## Fred Picks Apples

Fred and his father  
have some apples to sell.  
They will take them  
to the store in the truck.



1. How many baskets of apples  
have they picked? There are  
? baskets on the truck.

2. If you count them and get a group  
of 10 and some more, will the **how many**  
be a teens number? Why or why not?

3. In a group of 16 things,  
we can count ? more than 10.

4. Does this picture  
show two ways of finding  
that 16 is 6 more than 10?

5.  $16 = 10$  ones and ? ones.

6. How much less than 16 is 10?

16	
tens	ones
	10 ones
	6 ones
1 ten	6 ones



## Fred Feeds the Pigs

The pigs have come to get their breakfast.  
How many pigs are eating?  
How many pigs are on each side of the box?

$$\begin{array}{r}
 2 \times 8 = 16 \\
 16 = 8 + 8 \quad \text{Two } 8\text{'s} = 16 \\
 8 + 8 = 16 \quad 16 - 8 = 8
 \end{array}
 \qquad
 \begin{array}{r}
 8 \\
 + 8 \\
 \hline
 16
 \end{array}
 \qquad
 \begin{array}{r}
 8 \\
 \times 2 \\
 \hline
 16
 \end{array}
 \qquad
 \begin{array}{r}
 16 \\
 - 8 \\
 \hline
 8
 \end{array}$$

1. Count the pigs by 2's.

How many groups of 2 are in 16?

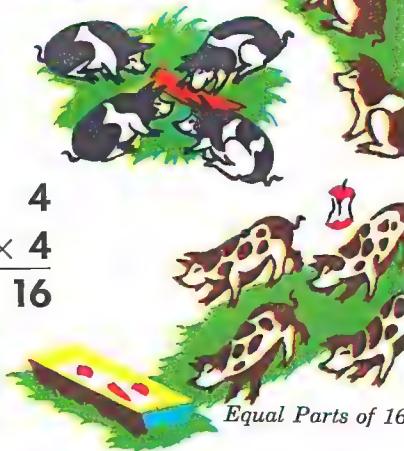
$$\begin{array}{r}
 16 = 8 \times 2 \\
 8 \times 2 = 16 \\
 \text{Eight } 2\text{'s} = 16
 \end{array}
 \qquad
 \begin{array}{r}
 2 \\
 \times 8 \\
 \hline
 16
 \end{array}$$



2. Do you see groups of 4?

How many are there?

$$\begin{array}{r}
 16 = 4 + 4 + 4 + 4 \\
 4 + 4 + 4 + 4 = 16 \\
 4 \times 4 = 16 \\
 \text{Four } 4\text{'s} = 16
 \end{array}
 \qquad
 \begin{array}{r}
 4 \\
 4 \\
 4 \\
 + 4 \\
 \hline
 16
 \end{array}
 \qquad
 \begin{array}{r}
 \times 4 \\
 \hline
 16
 \end{array}$$



*Equal Parts of 16*

## The Fish Pond Game

Fred and Nan are playing the **Fish Pond** game with their friends.

1. How many fish do they have in all?

2. Did you need to count them all by ones to find that there are 16 fish?

How did you count them?

3. How many groups of 2 fish each can you count in 16 fish?

4. How many groups of 4 fish each do you see on the table?

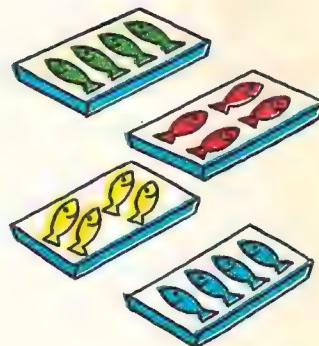
5. Can you make two equal groups out of all the fish?

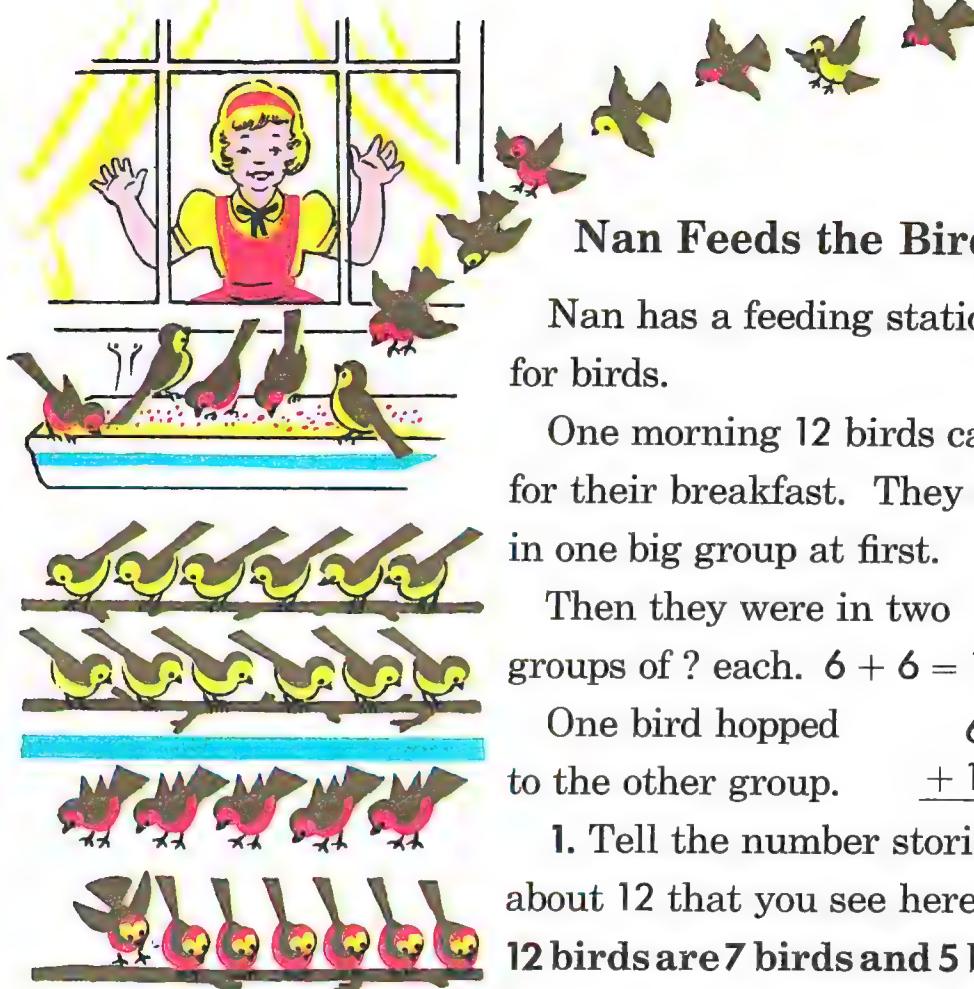
How many will there be in each of the 2 equal groups?

6. 16 fish are 4 groups of ? fish.

16 fish are 2 groups of ? fish.

16 fish are ? groups of 2 fish.





## Nan Feeds the Birds

Nan has a feeding station for birds.

One morning 12 birds came for their breakfast. They were in one big group at first.

Then they were in two groups of ? each.  $6 + 6 = 12$

One bird hopped  $\begin{array}{r} 6 \\ + 1 \\ \hline \end{array}$  to the other group.  $\begin{array}{r} 6 \\ - 1 \\ \hline \end{array}$

1. Tell the number stories about 12 that you see here.

**12 birds are 7 birds and 5 birds.**

$$12 = 7 + 5$$

$$7 + 5 = 12$$

$$\begin{array}{r} 7 & 5 \\ + 5 & + 7 \\ \hline 12 & 12 \end{array}$$

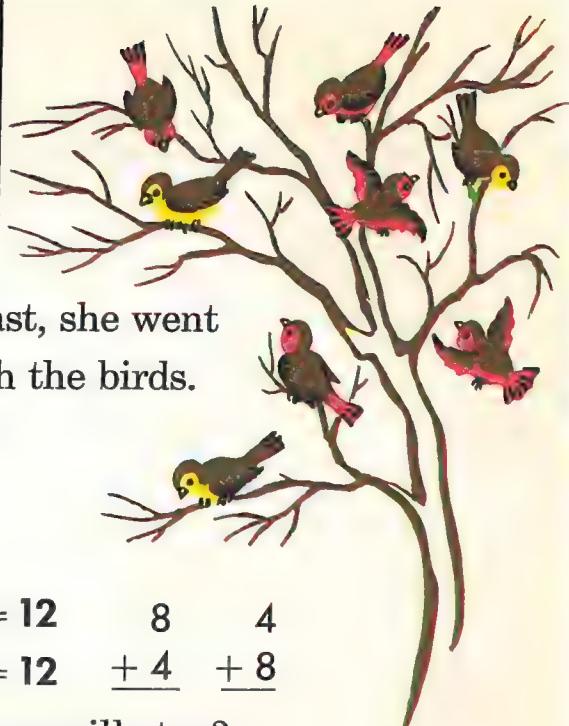
2. If 5 birds fly away,  
how many are left?

$$12 - 7 = 5$$

3. If 7 birds fly away,  
how many are left?

$$12 - 5 = 7$$

$$\begin{array}{r} 12 & 12 \\ - 5 & - 7 \\ \hline 7 & 5 \end{array}$$



After Nan had her breakfast, she went to the window again to watch the birds.

Now they looked like this.

**4. What number stories about 12 do you see?**

$$\begin{array}{l} \text{12 are 8 and 4. } 8 + 4 = 12 \\ \text{12} = 8 + 4 \qquad \qquad \qquad 4 + 8 = 12 \end{array} \quad \begin{array}{r} 8 \\ + 4 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ + 8 \\ \hline \end{array}$$

**5. If 4 birds leave, how many will stay?**

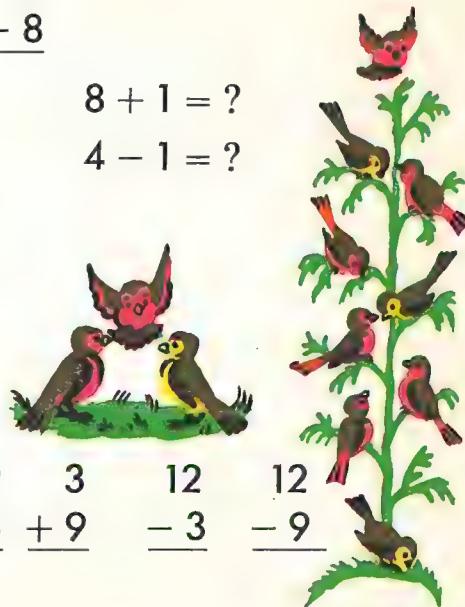
$$\begin{array}{r} 12 - 4 = 8 \\ 12 - 8 = 4 \end{array} \quad \begin{array}{r} 12 \\ - 4 \\ \hline 8 \end{array} \quad \begin{array}{r} 12 \\ - 8 \\ \hline 4 \end{array}$$

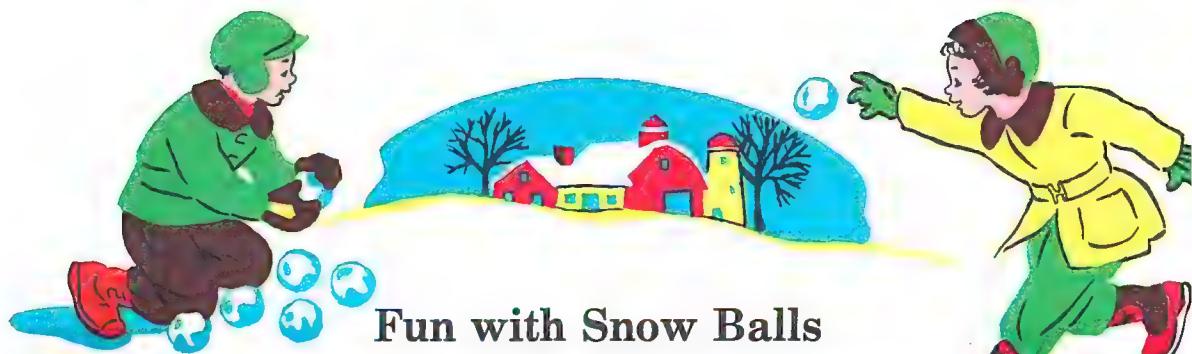
When another bird hops to the bigger group, we can see more number stories.

**6. Tell the number stories about 12 that this picture shows.**

**12 are 9 and 3.**

$$\begin{array}{r} 9 + 3 = 12 \\ 3 + 9 = 12 \end{array} \quad \begin{array}{r} 12 - 9 = 3 \\ 12 - 3 = 9 \end{array} \quad \begin{array}{r} 9 \\ + 3 \\ \hline 12 \end{array} \quad \begin{array}{r} 3 \\ + 9 \\ \hline 12 \end{array} \quad \begin{array}{r} 12 \\ - 3 \\ \hline 9 \end{array}$$





## Fun with Snow Balls

1. How many snow balls  
do Fred and Nan have?  $6 + 6 = ?$



$$\begin{array}{r} 7 \quad 5 \\ + 5 \quad + 7 \\ \hline \end{array}$$



$$\begin{array}{r} 8 \quad 4 \\ + 4 \quad + 8 \\ \hline \end{array}$$



$$\begin{array}{r} 9 \quad 3 \\ + 3 \quad + 9 \\ \hline \end{array}$$



$$\begin{array}{r} 10 \quad 2 \\ + 2 \quad + 10 \\ \hline \end{array}$$

2. Finish these stories. If you  
do not know them, think of parts  
that make 10 and some more like this:

$$\begin{array}{r} 7 \\ + 5 \\ \hline ? \end{array}$$

$$7 + 3 = 10$$

$$10 + 2 = 12$$

$$7 + 5 = ?$$

$$6 + 6 = ?$$

$$4 + 8 = ?$$

$$7 + 5 = ?$$

$$3 + 9 = ?$$

$$9 + 3 = ?$$

$$5 + 7 = ?$$

$$8 + 4 = ?$$

$$10 + 2 = ?$$

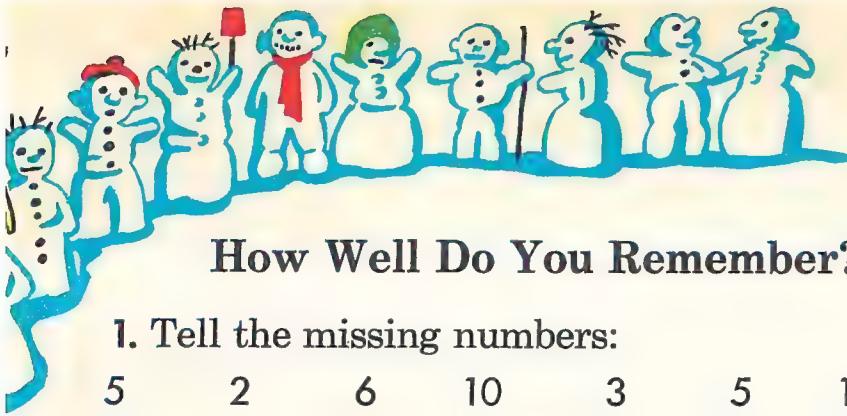
3. Do these  
take away stories:

$$\begin{array}{r} 12 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ - 3 \\ \hline \end{array}$$



## How Well Do You Remember?

1. Tell the missing numbers:

5	2	6	10	3	5	10	2
$+ 5$	$\times 5$	$+ 4$	$- 1$	$+ 7$	$\times 2$	$- 7$	$+ 8$
4	10	9	10	10	8	1	10
$+ 6$	$- 8$	$+ 1$	$- 6$	$- 2$	$+ 2$	$+ 9$	$- 4$
10	7	10	10	Five 2's are ?.			
$- 3$	$+ 3$	$- 9$	$- 5$	Two ?'s are 10.			

2. There are two figures in every  
teens number. Tens place is on the ?.  
Ones place is on the ?.

3. Two 6's = ?      Six 2's = ?

Two 8's = ?      Eight 2's = ?

Four 3's = ?      Three 4's = ?

4. 8 and 8 are ?.

5 and 7 are ?.

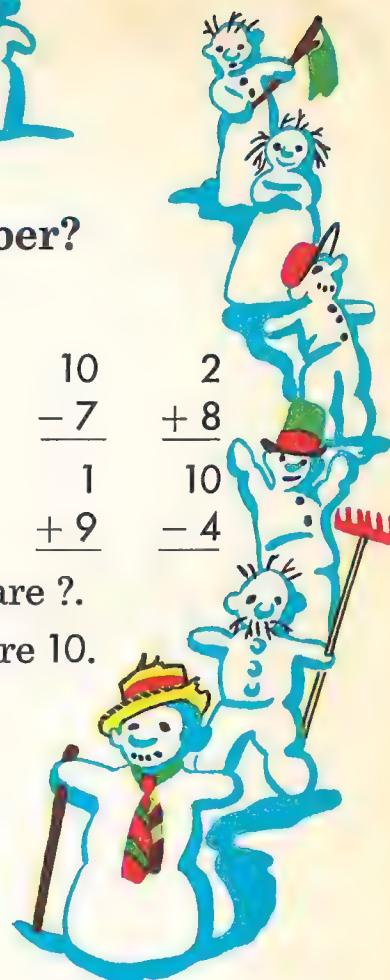
4 times ? = 16.

16 take away ? is 8.

12 take away 6 is ?.

9 and ? = 12.

6	4	10
$+ 6$	$\times 4$	$+ 2$
10	12	8
$+ 6$	$- 4$	$+ 4$
12	12	16
$- 7$	$- 3$	$- 6$





## Nan Makes Indian Hats

Here are some feathers Nan saved.  
She wants to make 2 Indian hats.



1. What two equal groups  
can she make  
with the feathers?

$$\begin{array}{r} 8 \\ + 8 \\ \hline \end{array}$$



She takes 1 feather from 1 group  
and puts it with the other group.

$$\begin{array}{r} 8 & 8 \\ + 1 & - 1 \\ \hline \end{array}$$



2. What stories about 16  
do the feathers tell now?

$$\begin{array}{r} 9 & 7 & 16 & 16 \\ + 7 & + 9 & - 7 & - 9 \\ \hline \end{array}$$

3. Let's do  $9 + 7 = ?$  by building a ten.

$$\begin{array}{r} 9 \\ + 7 \\ \hline \end{array}$$

$$9 + ? = 10$$

Think of the group of 7 as  $1 + 6$ .

Then,  $9 + 7 = 9 + 1 + 6 = 10 + 6 = ?$

4. You can use a ten when you subtract  
as well as when you add.

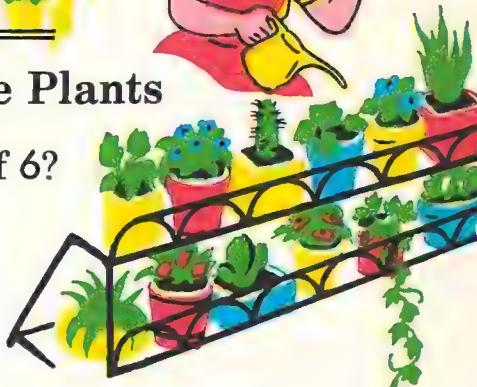
$$\begin{array}{r} 16 = 1 \text{ ten and } 6 \text{ ones} \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 10 \text{ ones} + 6 \text{ ones} \\ - 9 \text{ ones} \\ \hline ? \text{ ones} + ? \text{ ones} = ? \end{array}$$

Where did we get the 10 ones?



## Nan Waters the Plants

1. How many are 2 groups of 6?
2. How many are 3 groups of 4 plants each?
3. Finish these stories:



$$\begin{array}{r}
 7 \quad 9 \quad 6 \quad 4 \quad 3 \quad 5 \quad ? \quad 12 \quad 12 \\
 + ? \quad + 8 \quad - ? \quad - 7 \\
 \hline
 12 \quad 3 \quad ?
 \end{array}$$

$$\begin{array}{r}
 12 \quad 8 \quad 12 \quad 12 \quad 12 \quad 12 \quad 12 \quad 12 \quad 6 \\
 - 4 \quad + ? \quad - 3 \quad - ? \quad - 2 \quad - ? \quad - 5 \quad - 8 \quad \times 2 \\
 \hline
 ? \quad 12 \quad ? \quad 6 \quad ? \quad 2 \quad ? \quad ? \quad ?
 \end{array}$$

4. Count these nuts.



5. How many more than 10 did you count?
6. 16 nuts are 10 nuts and ? nuts.
7. Find the missing numbers in these:

$$\begin{array}{r}
 4 \quad 8 \quad 16 \quad 16 \quad 9 \quad 16 \quad 7 \quad 16 \quad 2 \\
 \times 4 \quad + ? \quad - 9 \quad - 7 \quad + ? \quad - ? \quad + ? \quad - 8 \quad \times 8 \\
 \hline
 ? \quad 16 \quad ? \quad ? \quad 16 \quad 6 \quad 16 \quad ? \quad ?
 \end{array}$$



## Let's Do These

**1.** Nan and Sue made doll dresses.

They made 5 dresses Saturday. Today they made 7 dresses. How many new dresses do their dolls have?

**2.** Nan had 4 turns to jump rope.

She jumped 4 times each turn.

How many times did she jump in all?

**3.** Fred has 16¢. He has ? cents more than a dime.

**4.** Fred and Nan like to play marbles.

Fred has 9 marbles, but Nan has 7 more than Fred. How many marbles has Nan?

**5.** Fred went to the store. He saw balloons for 3¢ each. Could he buy as many balloons with a dime and 2 pennies as he could with 2 nickels and 2 pennies?

**6.** Six girls are playing together.

Each girl has 2 puppets. How many puppets do they have in all?





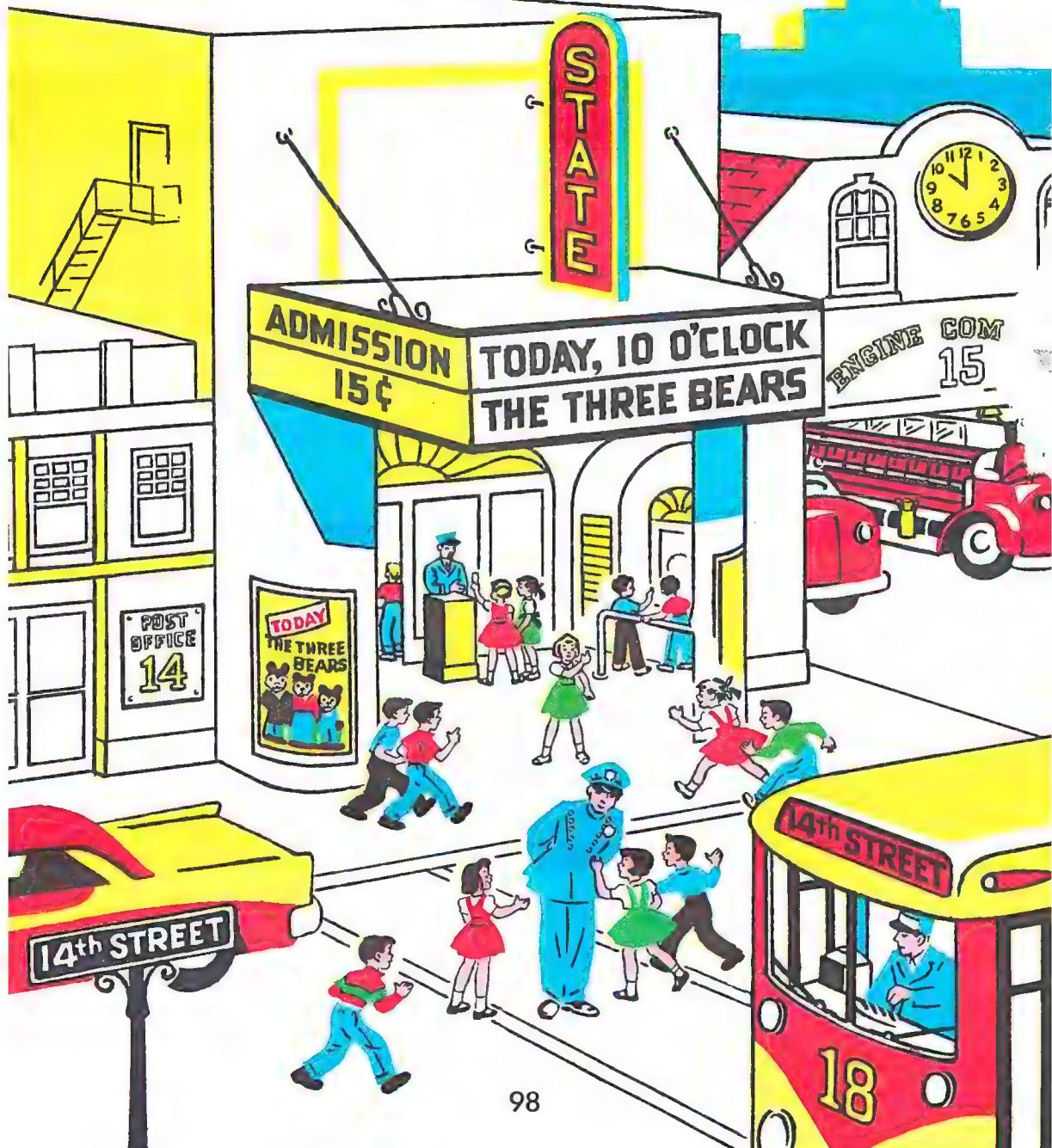
## Unit Test

1. How many are 7 jacks and 5 jacks?
2. How many more than 9 is 12?
3. Find 2 equal groups in 12.
4. Twelve is ? more than four.
5. What time does  
the first clock show?  
How much later is it  
by the second clock?
6. 4 apples and 8 apples are ? apples.
7. 6 balls and 10 balls are ? balls.
8. 16 is ? more than 7.
9. There are ? groups of 2 each in 16.
10. How many groups of 4 are in 16?
11. A foot ruler shows 12 ?.
12. A clock face shows 12 ?.
13. A dozen is ? things.
14. What 8 pieces of money  
make 16 cents? 12 cents?
15. Six couples are ? children.



## Unit 6

# Things We Like to Do



## In Our Town

The picture shows you the town where Bob and Betty live.

1. Is it a big town or a small town?

What makes you think so?

2. Does the picture make you think of a town that you know? How?

3. What is the name of the movie today?

4. Can you see what time the show starts? What will help the children know if they are on time?

5. The movie is on 14th Street. Do you know of a street with a number for a name? What is it called?

6. How many children are going to see the picture?

7. It is Saturday morning. How much does the movie cost? Will a dime and a nickel be enough to buy a ticket?

8. What number is on the bus?

Why does the bus have a number on it?

SUN	MON	TUES	WED	THUR	FRI	SAT
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					



## Mother Has a Surprise

Bob and Betty are happy.

Their mother has just told them  
that Jack is coming to visit them.

He is coming in two weeks.

1. Look at the calendar. How many days  
are in 1 week? in 2 weeks?

How do you know?

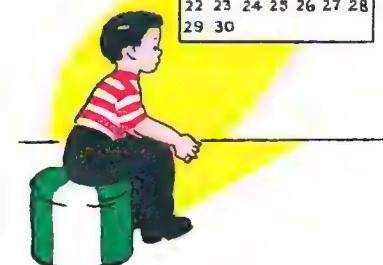
2. Why do you think Betty put the ring  
around the number 14 on the calendar?

3. What day of the week is the 14th?

4. Did you ever wait 14 days  
for something?

5. How do you sometimes use  
the number 14?

SUN	MON	TUES	WED	THUR	FRI	SAT
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					



*The Number 14—the Calendar*

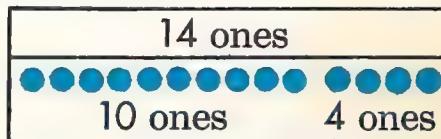


## Waiting for Jack's Visit

Bob wants to see Jack. He has waited 4 days.

1. How many more of the 14 days must he wait? How did you find out?

2. Tell how this picture shows the 14 ones.



3. How does the picture show that 14 is 1 ten and 4 ones?

4. What places do the 1 and the 4 hold in 14?

14	
tens	ones
1	• • • •
1 ten	4 ones

5. We know that there are 14 days in 2 weeks. How many days are in 1 week?

6. What times story do we get from the number of days in 2 weeks?

$$14 = 2 \times 7$$

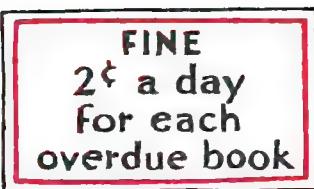
$$2 \times 7 = 14$$

$$\text{Two } 7\text{'s} = 14$$

$$\begin{array}{r}
 & 7 \\
 & \times 2 \\
 \hline
 & 14
 \end{array}$$

7. How many more than 1 ten is 14?

8. Can you find two 7's by using 10 and 4?



## At the Library

Betty likes to go to the library.

**1.** She is taking a book back today.

It is a 7-day book. She kept it 7 more days. How many days did she keep the book?

She has some pennies to pay for keeping it too long.

**2.** Count her pennies. How many does she have? How many groups of 2 pennies are there?

**3.** Betty also has a 14-day book but is taking it back after 1 week. How much longer could she keep it?

**4.** Tell how Betty used all of these number stories at the library:

$$14 = 7 + ?$$

$$7 + 7 = ?$$

$$14 - 7 = ?$$

$$\begin{array}{r} 7 \\ + 7 \\ \hline \end{array}$$

$$14 = 2 \times ?$$

$$7 \times 2 = ?$$

$$\begin{array}{r} 7 \\ \times 2 \\ \hline \end{array}$$

## Betty Helps

Betty is counting to see  
that there are 14 chairs  
for her mother's party.  
How many do you count?



1. Are the chairs in 2 equal groups?

How can you tell without counting them?

2. How many chairs are in each  
of the 2 groups?

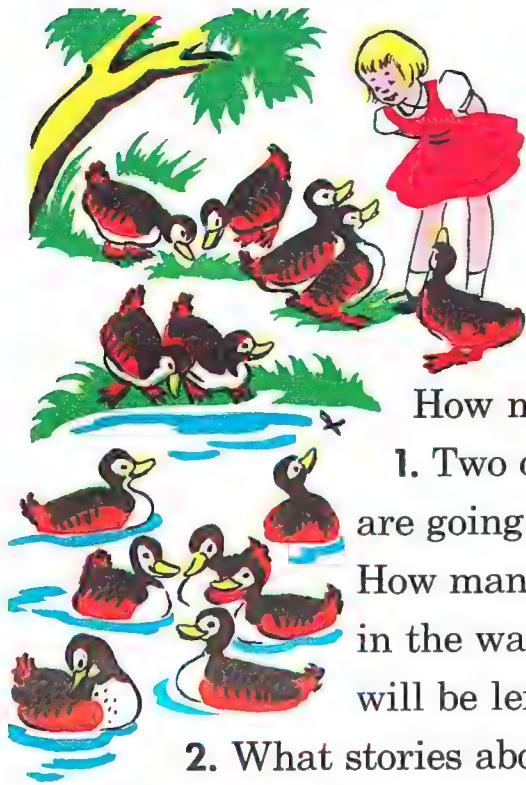
3. We know that  $7 + 7 = 14$ .

How does that story help us to find  
other groups in 14?

4. The ladies will want to sit  
in groups. Tell how they would  
move the chairs to make all of these  
stories:

$$\begin{array}{r} 7 \\ - 1 \\ \hline 6 \end{array} \quad \begin{array}{r} 7 \\ + 1 \\ \hline 8 \end{array} \quad \begin{array}{r} 8 \\ + 6 \\ \hline 14 \end{array} \quad \begin{array}{r} 6 \\ + 8 \\ \hline 14 \end{array} \quad \begin{array}{r} 14 \\ - 8 \\ \hline 6 \end{array} \quad \begin{array}{r} 14 \\ - 6 \\ \hline 8 \end{array}$$

$$\underline{\begin{array}{r} 8 \\ + 6 \end{array}} = 8 + 2 + 4. \quad \text{Why?} \quad \underline{\begin{array}{r} 14 \\ - 6 \end{array}} = \underline{\begin{array}{r} 10 \\ + 4 \end{array}} \quad \text{Why?}$$



## At the Park

Today, Betty is in the park.  
She sees 7 ducks in the water  
and 7 more on the grass.

How many ducks does she see in all?

1. Two of the ducks on the grass  
are going in the water for a swim.

How many will that make

in the water? How many       $\begin{array}{r} 7 \\ + 2 \\ \hline 9 \end{array}$       will be left on the grass?       $\begin{array}{r} 7 \\ - 2 \\ \hline 5 \end{array}$

2. What stories about 14  
do the 2 groups of ducks make now?

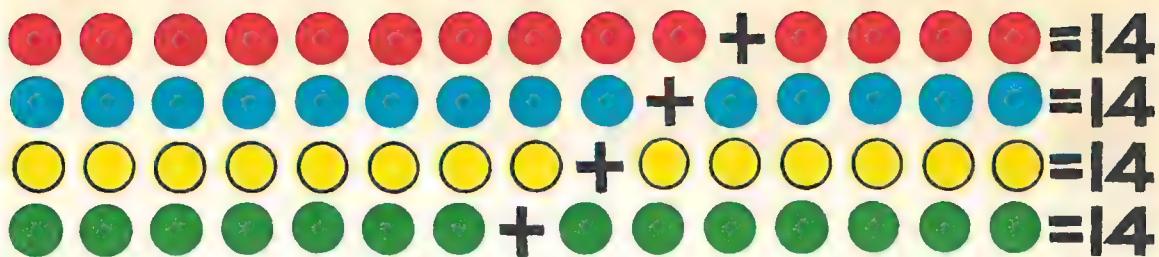


$$\begin{array}{r} 14 = 9 + 5 \\ 9 \quad \quad 5 \\ 9 + 5 = 14 \quad \begin{array}{r} + 5 \\ \hline 14 \end{array} \quad \begin{array}{r} + 9 \\ \hline 14 \end{array} \quad \begin{array}{r} 9 \\ + 5 \\ \hline \end{array} = 9 + 1 + 4. \text{ Why?} \end{array}$$

3. If 5 of the ducks go away  
to get something to eat,  
how many ducks will be left?

4. Finish these number stories:

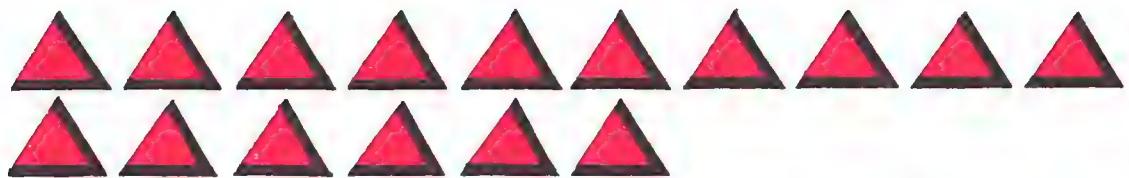
$$\begin{array}{r} 14 - 9 = ? \\ 14 - 5 = ? \end{array} \quad \begin{array}{r} 14 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 14 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 14 \\ - 9 \\ \hline \end{array} = \begin{array}{r} 10 + 4 \\ - 9 \\ \hline \end{array} \quad \text{Why?} \end{math>$$



## What Have You Learned about 14?

1. What number story does the first line show you? How can this help you to read the stories in the other lines without counting them?
2. Bob has 14 cars. All but 6 of them are blue. How many blue cars does he have?
3. If Bob lets Bill play with 7 of his cars, does Bill have more cars than Bob? Why?
4. Bob has 14¢. Can he buy 7 sticks of candy if each stick costs 2¢? Tell how you would find the answer.
5. Write two **and** stories and two **take away** stories about the groups of 5 and 9 in 14.
6. Tell two **times** stories about groups in fourteen.





## Stories You Should Know

1. You should know these right now:

$$\begin{array}{r} 5 \\ + 4 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ - 2 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ + 5 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ + 3 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 5 \\ + 2 \\ \hline \end{array}$$
$$\begin{array}{r} 4 \\ \times 2 \\ \hline \end{array} \quad \begin{array}{r} 2 \\ + 7 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ \times 3 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ + 4 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 2 \\ \times 4 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ \times 2 \\ \hline \end{array}$$

2. You may have to think a little about these:

$$\begin{array}{r} 7 \\ + 3 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 2 \\ + 8 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ + 4 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ - 1 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ + 7 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 2 \\ \times 5 \\ \hline \end{array}$$
$$\begin{array}{r} 10 \\ - 2 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ + 1 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 5 \\ \times 2 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ - 8 \\ \hline \end{array} \quad \begin{array}{r} 10 \\ - 3 \\ \hline \end{array}$$

3. Watch for tens and ones:

$$\begin{array}{r} 5 \\ + 7 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ + 7 \\ \hline \end{array} \quad \begin{array}{r} 14 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ \times 2 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ + 8 \\ \hline \end{array} \quad \begin{array}{r} 12 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ \times 2 \\ \hline \end{array} \quad \begin{array}{r} 14 \\ - 8 \\ \hline \end{array}$$
$$\begin{array}{r} 7 \\ \times 2 \\ \hline \end{array} \quad \begin{array}{r} 14 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 12 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 14 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ + 6 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ + 3 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ + 8 \\ \hline \end{array} \quad \begin{array}{r} 2 \\ \times 7 \\ \hline \end{array}$$
$$\begin{array}{r} 12 \\ - 8 \\ \hline \end{array} \quad \begin{array}{r} 12 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ \times 4 \\ \hline \end{array} \quad \begin{array}{r} 14 \\ - 10 \\ \hline \end{array} \quad \begin{array}{r} 2 \\ \times 6 \\ \hline \end{array} \quad \begin{array}{r} 12 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 2 \\ \times 8 \\ \hline \end{array} \quad \begin{array}{r} 14 \\ - 9 \\ \hline \end{array}$$
$$\begin{array}{r} 16 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ \times 3 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ + 9 \\ \hline \end{array} \quad \begin{array}{r} 16 \\ - 10 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ + 8 \\ \hline \end{array} \quad \begin{array}{r} 16 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ + 5 \\ \hline \end{array} \quad \begin{array}{r} 12 \\ - 9 \\ \hline \end{array}$$



## Saving Money Is Fun

Mother has just given 15¢ to Betty.  
You see Betty putting some of her money  
in a bank.

1. Betty has 15 pennies. What other coins could she have that would make 15¢?
2. Tell how all of the groups of coins in the box make 15¢.

15 pennies  
1 dime and 5 pennies  
1 dime and 1 nickel  
2 nickels and 5 pennies  
3 nickels  
10 pennies and 1 nickel



3. Which group of coins shows that 15 is 1 ten and 5 ones?



## Betty's Pennies

**1.** Count Betty's pennies by ones.

How many pennies are there?

**2.** Can you put 15 pennies into 2 equal groups? Why or why not?

When we have a number of things that cannot be put into 2 equal groups, we have an **odd** number.

When we have a number of things that can be put into 2 equal groups, we have an **even** number.



**3.** Which of these are even numbers?

12    8    14    7    3    16    15    9    10

**4.** Do all of the **times** stories about 2 make even numbers? any about 3? Why?

**5.** Which of these stories have even numbers for answers?

$$\begin{array}{r}
 8 & 4 & 3 & 5 & 2 & 4 & 7 & 9 \\
 + 4 & + 3 & + 9 & + 5 & + 7 & + 5 & + 5 & + 7 \\
 \hline
\end{array}$$

## At the Movies

Betty, Bob and Jack  
want to sit  
in the middle group  
of seats.

1. How many seats are in that group in the picture?
2. How do these stories tell about that group of seats?

$$5 + 5 + 5 = 15$$

5

$$3 \times 5 = 15$$

5      5

$$\text{Three } 5\text{'s} = 15$$

$$\begin{array}{r} + 5 \\ \hline 15 \end{array} \quad \begin{array}{r} \times 3 \\ \hline 15 \end{array}$$

3. Look at the picture again. Tell how these stories tell about the picture.

$$3 + 3 + 3 + 3 + 3 = 15$$

3

$$5 \times 3 = 15$$

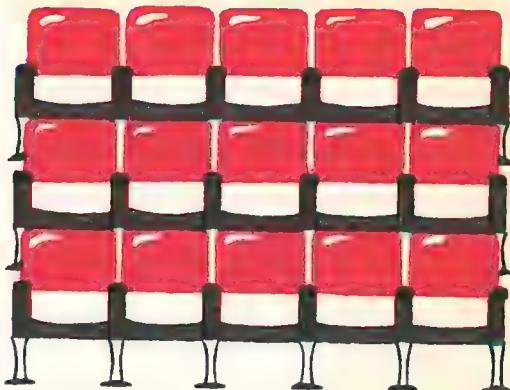
$\times 5$

$$\text{Five } 3\text{'s} = 15$$

15

4. The children had 3 nickels to spend for candy on their way to the movies. Tell how they might use these stories:

$$\begin{array}{r} 15 & 15 & 15 \\ - 5 & - 10 & - 15 \\ \hline 10 & 5 & 0 \end{array}$$





## More Stories about 15

1. Tell why 1 dime and 5 pennies equal 15 cents.

Does  $1 \text{ ten} + 5 \text{ ones} = 10 \text{ ones} + 5 \text{ ones}$ ? Why?

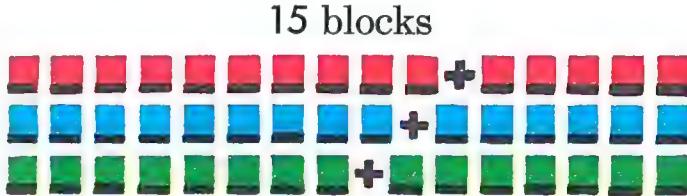
The blocks show us the number stories  
about the unequal parts of 15.

2. Each row tells

a story about 15.

Count the blocks

to find each story.



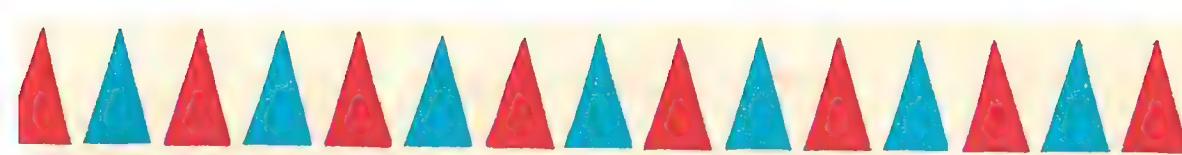
3. Did you find all these stories?

$$\begin{array}{r} 10 \\ + 5 \\ \hline 15 \end{array} \quad \begin{array}{r} 5 \\ + 10 \\ \hline 15 \end{array} \quad \begin{array}{r} 9 \\ + 6 \\ \hline 15 \end{array} \quad \begin{array}{r} 6 \\ + 6 \\ \hline 15 \end{array} \quad \begin{array}{r} 8 \\ + 7 \\ \hline 15 \end{array} \quad \begin{array}{r} 7 \\ + 8 \\ \hline 15 \end{array}$$

4. Do these number stories:

$$\begin{array}{r} 10 \\ - 1 \\ \hline 7 \\ + 1 \\ \hline \end{array} \quad \begin{array}{r} 5 \\ + 1 \\ \hline 10 \\ - 2 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ - 1 \\ \hline 5 \\ + 2 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ + 1 \\ \hline 10 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ - 1 \\ \hline 5 \\ + 3 \\ \hline \end{array}$$

How could you use these stories  
to find the unequal parts of 15?



## Are You a Good Thinker?

You can count  
by ones.

$$\begin{array}{r} 15 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ + 7 \\ \hline \end{array}$$

You can figure by using  
parts of 10.

$$\begin{array}{r} 10 \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ + 8 \\ \hline \end{array}$$

$$\begin{array}{r} 15 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 15 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 15 \\ - 6 \\ \hline \end{array}$$

Why?

Why?

Why?

Why?

**9.** If you know the **and** stories,  
you should know the **take away** stories.

$8 + 7 = 15$ , then  $15 - 8 = ?$ , or  $15 - 7 = ?$ .

$9 + 6 = 15$ , then  $15 - 9 = ?$ , or  $15 - 6 = ?$ .

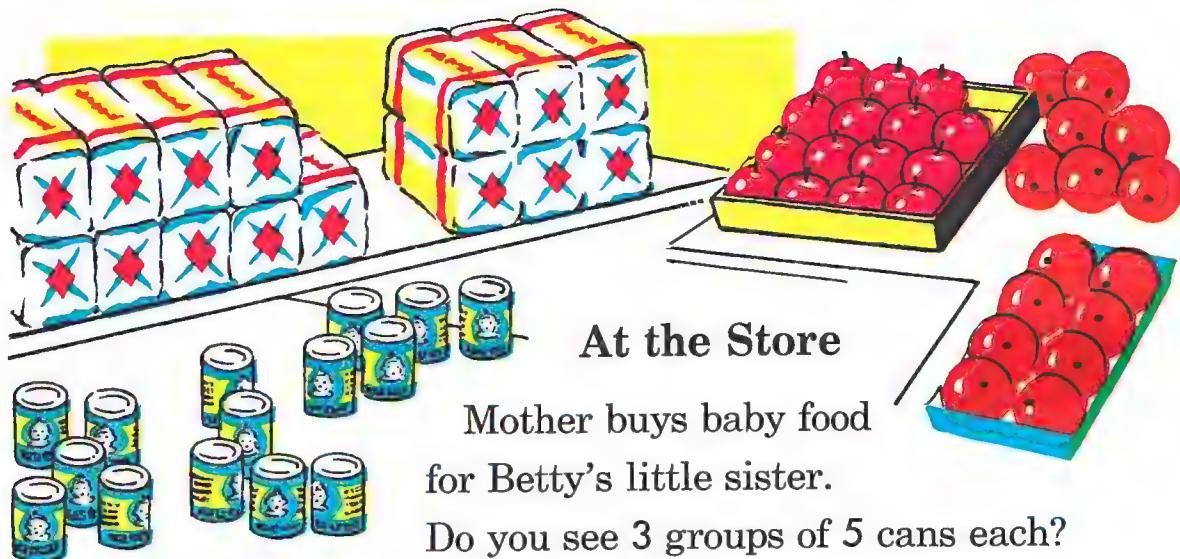
**10.** Find  $15 - 9$  by using the parts  
10 and 5 for 15.

**11.** Tell why these are right:

$$7 + 8 = 7 + 3 + 5 = 10 + 5 = 15$$

$$6 + 9 = 6 + 4 + 5 = 10 + 5 = 15$$

**12.** How would you find  $15 - 8$ ?



## At the Store

Mother buys baby food  
for Betty's little sister.

Do you see 3 groups of 5 cans each?

1. How many cans of baby food  
is she buying?
2. Find some groups of 15 things.
3. 9 cans and 6 cans are how many cans?
4. 8 oranges and 7 oranges make  
how many oranges?
5. Finish these stories:

Use the things in the picture to help you.

$$\begin{array}{r}
 7 & 6 & 10 & 15 & 15 & 15 & 15 & 15 & 3 \\
 + 8 & + 9 & + 5 & - 6 & - 8 & - 5 & - 7 & - 9 & \times 5 \\
 \hline
\end{array}$$

6. Add, starting with the top number:

$$\begin{array}{r}
 9 & 8 & 1 & 3 & 7 & 2 & 6 & 5 & 10 & 4 \\
 1 & 2 & 9 & 7 & 3 & 8 & 4 & 5 & 5 & 6 \\
 \hline
 5 & 5 & 5 & 5 & 5 & 5 & 5 & 5 & 0 & 5 \\
 \hline
\end{array}$$

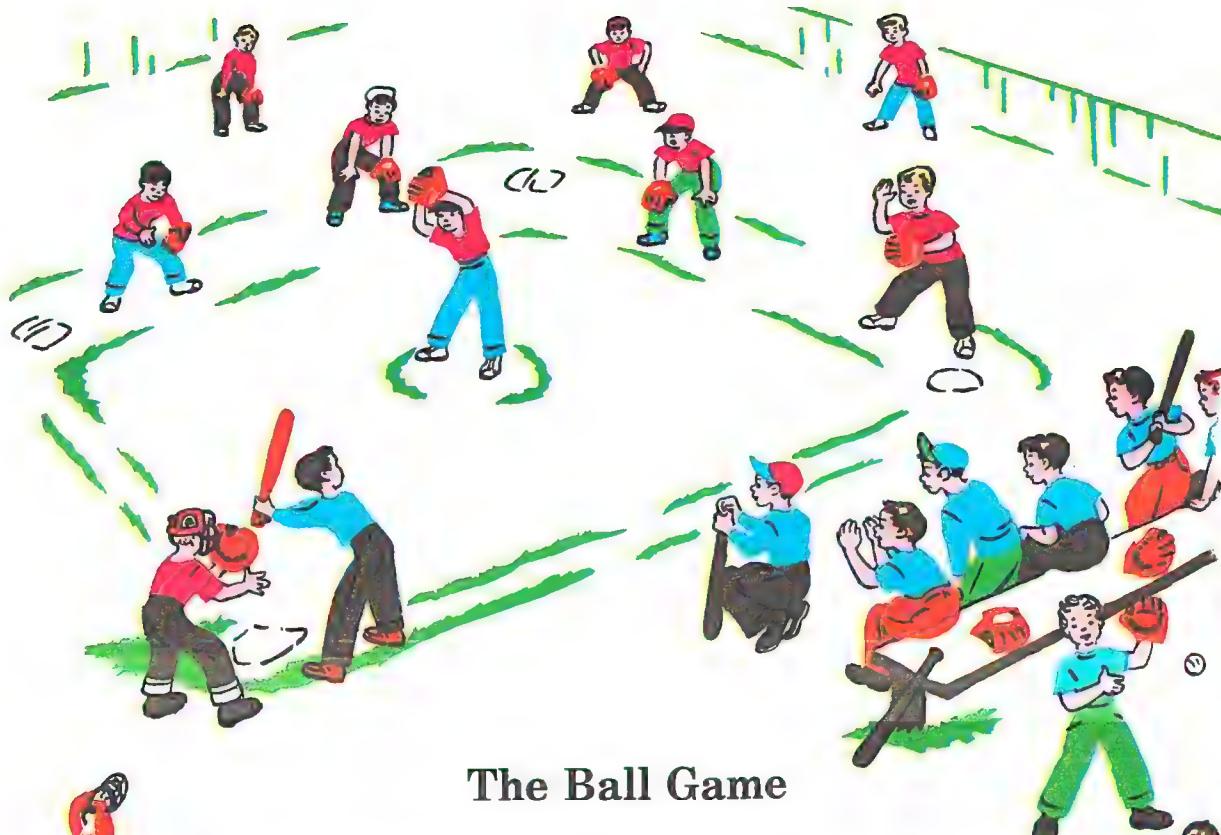


## Do You Know These?

1. How much less than 15 is 8? 
2. How many threes are in 15? 
3. How much less than 15 is 9? 
4. If you have a dime and a nickel,  
how many cents do you have in all? 
5. How much more than 9 is 14? 
6. Would you get change from a nickel  
and a dime if you spent 14 cents? 
7. What **take away** stories about 15  
does the story  $8 + 7 = 15$  tell you? 
8. If  $9 + 6 = 15$ , tell why  
these 2 stories are right:  $15 - 9 = 6$ ,  $15 - 6 = 9$  

9. How fast can you tell the answers?

$8$	$9$	$8$	$7$	$9$	$10$	$10$	$14$	$3$
$+ 7$	$+ 5$	$+ 6$	$+ 7$	$+ 6$	$+ 4$	$+ 5$	$- 4$	$\times 5$
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
$14$	$15$	$15$	$14$	$14$	$15$	$15$	$4$	$6$
$- 7$	$- 10$	$- 6$	$- 8$	$- 5$	$- 5$	$- 9$	$+ 10$	$+ 9$
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
$7$	$15$	$14$	$14$	$15$	$2$	$5$	$6$	$7$
$+ 2$	$- 7$	$- 9$	$- 6$	$- 8$	$\times 7$	$+ 10$	$+ 8$	$+ 8$
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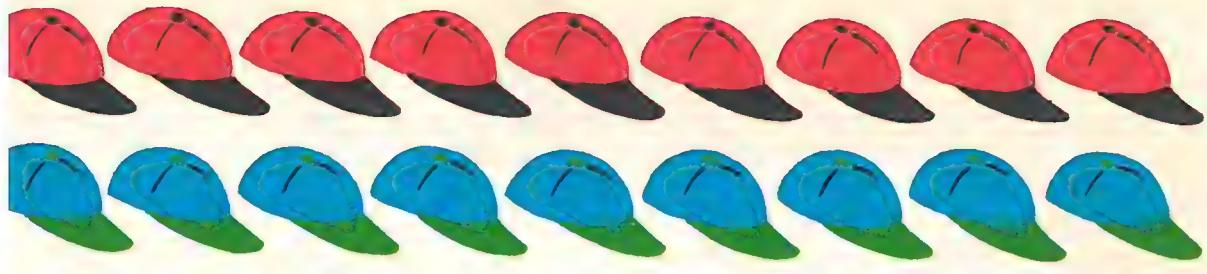
## The Ball Game



Bob's town has a good ball park.  
The boys have a game on Saturday morning.

1. Do you like to watch a ball game?  
Do you like to play in the game?
2. How many players are on each team?  
How many teams are needed for a game?
3. How many boys are in the picture?
4. How many boys are on the field?  
Are they all on one team? Why?
5. The number 18 is ? ten and ? ones.





## New Caps for the Teams

Here are new caps for the teams.

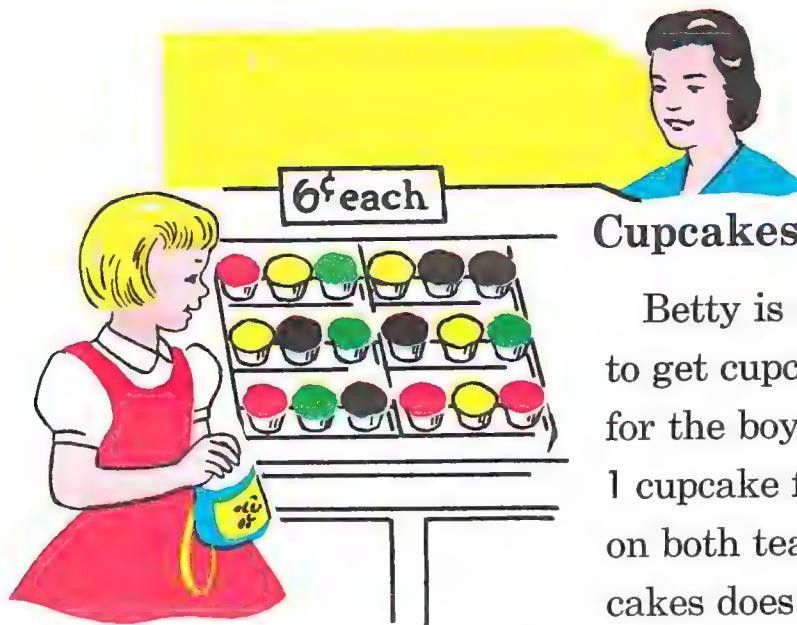
1. Count the caps by ones. Count them by twos. How many caps are there?
2. How many teams do you think will get these caps? Why? How many caps are there for each of the 2 teams?
3. How many are there in each of the 2 equal parts of 18?
4. Write three number stories about the 2 groups of 9 in 18.

$$\begin{array}{r} 9 & 18 & 9 \\ + ? & - ? & \times ? \\ \hline 18 & 9 & 18 \end{array}$$

5. How many groups of 2 caps are there in 18 caps?

$$9 \times 2 = 18 \qquad \begin{array}{r} 2 \\ \times 9 \\ \hline 18 \end{array}$$

6. Tell why these are the same number story:



## Cupcakes for the Boys

Betty is at the store to get cupcakes for the boys. She wants 1 cupcake for each boy on both teams. How many cakes does she need?

1. Are there enough cupcakes?
2. Can you count the cakes by threes?
3. How many groups of 3 are in 18?
4. Can you find the groups of 6 in 18?
5. Read these stories and

tell what they mean:

$$3 + 3 + 3 + 3 + 3 + 3 = ?$$

$$6 + 6 + 6 = ?$$

$$\text{Three } 6\text{'s} = ?$$

6. Find three 6's in  $10 + 8$ .
7. How does using  $9 + 9 = 18$  help you to know  $6 \times 3$ ?
8. How much will 3 cupcakes cost?

3	6	6
$\times 6$	$\times 3$	$\underline{+ 6}$



## Lunch Is Ready

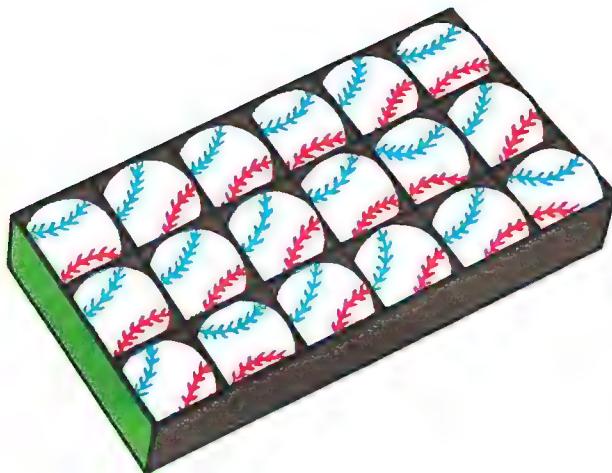
Betty is filling 18 glasses with orange drink for the boys' lunch.

1. Tell how the picture shows you that 18 is 10 and 8.
2. What does the 1 in the number 18 tell you? What does the 8 tell you? What are the names of their places?
3. Betty has filled 8 of the 18 glasses. How many are left to be filled?
4. When the two teams of 9 boys each come to lunch, why are there 18 boys in all?
5. How many groups of 6 boys each would there be in 18 boys?

6. Tell why  $9 + 9 = 10 + 8 = 18$

$$\begin{array}{r} 18 \\ \text{and} \quad - 9 \\ \hline 9 \end{array} = \begin{array}{r} 10 + 8 \\ - 9 \\ \hline 9 \end{array} = 9.$$

7.  $2 \times 9 = ?$        $9 \times 2 = ?$        $6 \times 3 = ?$
- $18 - 9 = ?$        $3 \times 6 = ?$        $18 - 10 = ?$



## Let's Do These

1. Look at the picture of the big box of balls. Tell the number stories about 18 that you see there.

2. Is this a good way to figure?

$$\begin{array}{r} 14 \\ - 10 \\ \hline 4 \text{ ones} \end{array} = \frac{1 \text{ ten} + 4 \text{ ones}}{- 1 \text{ ten}} = \frac{14}{4}$$

3. Find  $15 - 10$ , using 1 ten and some ones.

4. Tell why this is good thinking:

$14 - 14$  is 1 ten and 4 ones.

$\begin{array}{r} - 9 \\ \hline 5 \end{array}$  We cannot take 9 ones from 4 ones. Why?

So we think:  $14 = 10$  ones and 4 ones.

We can take 9 ones away from 10 ones.

This leaves 1 one and 4 ones = 5 ones.

5. Find the answers:

$6$	$7$	$3$	$9$	$5$	$2$	$3$	$2$
$\times 3$	$\times 2$	$\times 5$	$\times 2$	$\times 3$	$\times 7$	$\times 6$	$\times 9$
$\underline{14}$	$\underline{15}$	$\underline{18}$	$\underline{15}$	$\underline{14}$	$\underline{15}$	$\underline{14}$	$\underline{15}$
$- 8$	$- 6$	$- 8$	$- 7$	$- 5$	$- 8$	$- 7$	$- 9$
$\underline{\underline{}}$							



## Unit Test

1. Look at the picture. 8 cookies and 2 cookies are ? cookies. 5 more cookies make ? cookies.

2. Start with the bottom number. Add up.

$$\begin{array}{r} 5 & 8 & 4 & 8 & 4 & 5 & 8 & 4 \\ 6 & 5 & 1 & 4 & 9 & 2 & 3 & 8 \\ \underline{4} & \underline{5} & \underline{9} & \underline{6} & \underline{1} & \underline{8} & \underline{7} & \underline{2} \end{array}$$

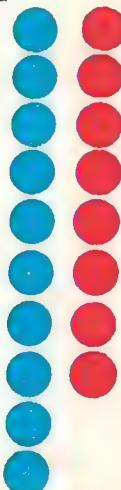
3. If we know  $5 + 9$ , do we know  $9 + 5$ ?  
4. How many skates are in 9 pairs? Why?  
5. Which is more, 2 groups of 9  
or 3 groups of 5? Why?

6. What is 2 times 7, or two 7's?  
7.  $15 - 9 = ?$ . Use 10 ones and 5 ones  
for 15.

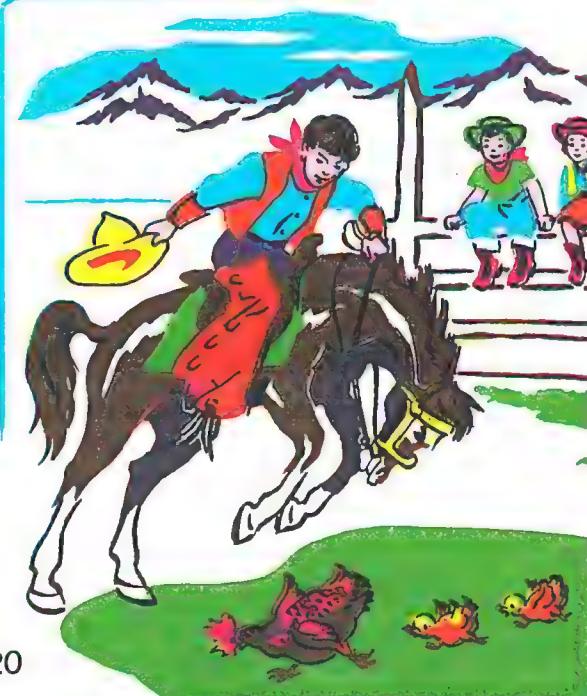
8. Do  $9 + 9$  by finding 10 and some more.

9. Tell the answers to these:

$$\begin{array}{r} 9 & 6 & 14 & 9 & 3 & 18 & 2 & 15 & 14 \\ + 6 & \times ? & - 8 & + ? & \times ? & - ? & \times ? & - 7 & - 9 \\ \hline ? & 18 & ? & 18 & 18 & 8 & 18 & ? & ? \end{array}$$



**Unit 7**  
**Visiting Our Friends**





## At the Gas Station

Joe and Judy are on a trip  
with their family. They have stopped  
at a gas station for gas and oil.

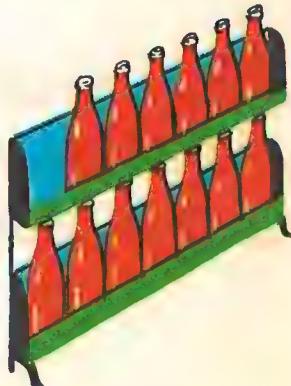
Mac helps his father. He put  
the cans of oil out for him.

1. How many green cans has he put out?  
How many blue cans are there?

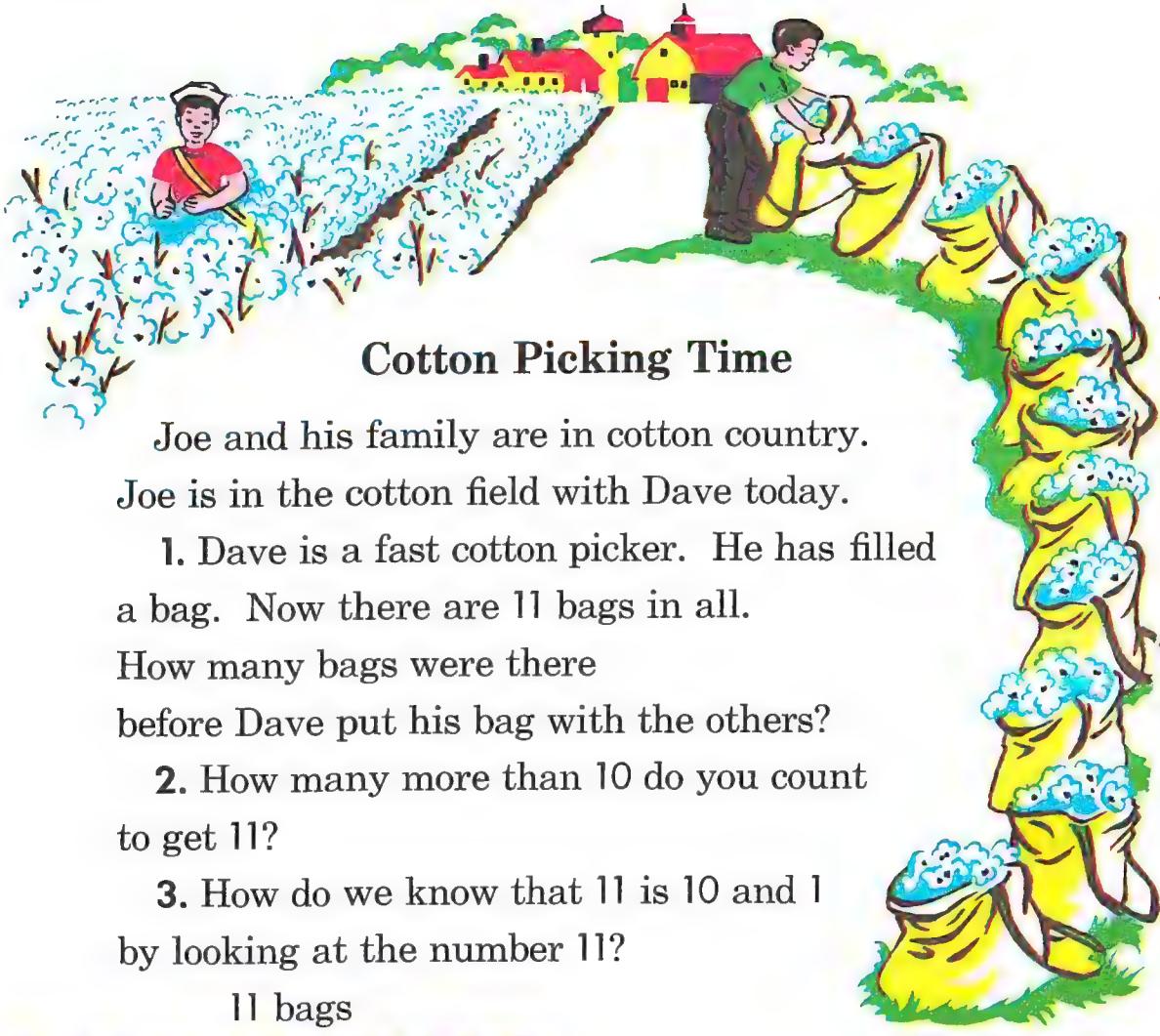


2. How many pop bottles do you see?  
3. Mac is counting the tires. His father  
thinks he put out eleven tires. Did he?

4. If you were to take a trip by car,  
would you use numbers? How?



5. How would you use numbers  
if you went by bus, or by train,  
or by airplane?



## Cotton Picking Time

Joe and his family are in cotton country.  
Joe is in the cotton field with Dave today.

1. Dave is a fast cotton picker. He has filled a bag. Now there are 11 bags in all.

How many bags were there  
before Dave put his bag with the others?

2. How many more than 10 do you count  
to get 11?

3. How do we know that 11 is 10 and 1  
by looking at the number 11?

11 bags



11 bags

$11 \text{ bags} = 10 \text{ bags} + ? \text{ bag}$

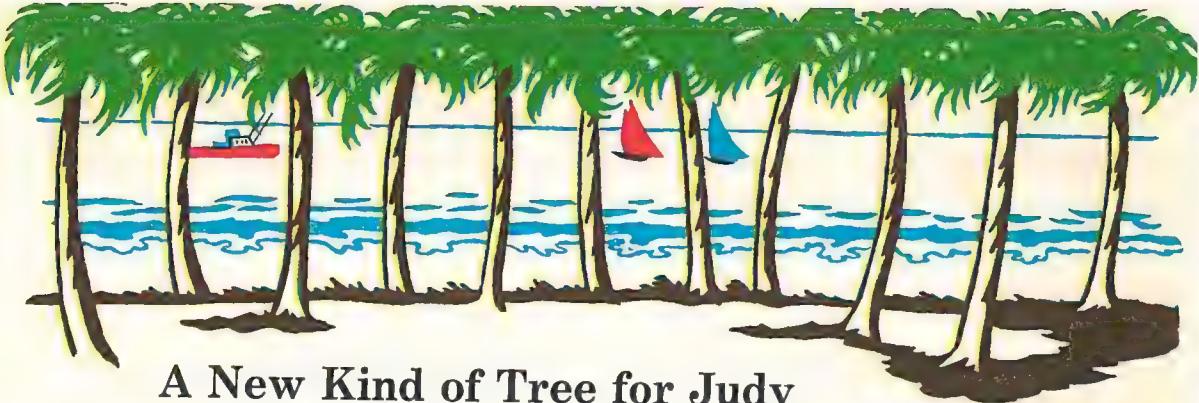
$11 \text{ bags} = ? \text{ bags} + 2 \text{ bags}$

4. Use the picture of the bags to find:

$$11 = 8 + 3$$

$$11 = 7 + 4$$

$$11 = 6 + 5$$



## A New Kind of Tree for Judy

Judy has never seen this kind of tree.  
Now she sees a lot of them.  
She tries to count them.  
There are too many to count,  
but she sees 11 in one group.



1. Can you find these parts  
in the group of 11 trees?

$$11 = 5 + ?$$

$$\begin{array}{r} 5 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ + 8 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ + 10 \\ \hline \end{array}$$

$$11 = 4 + ?$$

$$\begin{array}{r} 5 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ + 8 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ + 10 \\ \hline \end{array}$$

$$11 = 3 + ?$$

$$\begin{array}{r} 5 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ + 8 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ + 10 \\ \hline \end{array}$$

$$11 = 2 + ?$$

$$\begin{array}{r} 5 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ + 8 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ + 10 \\ \hline \end{array}$$

$$11 = 1 + ?$$

$$\begin{array}{r} 5 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ + 8 \\ \hline \end{array}$$

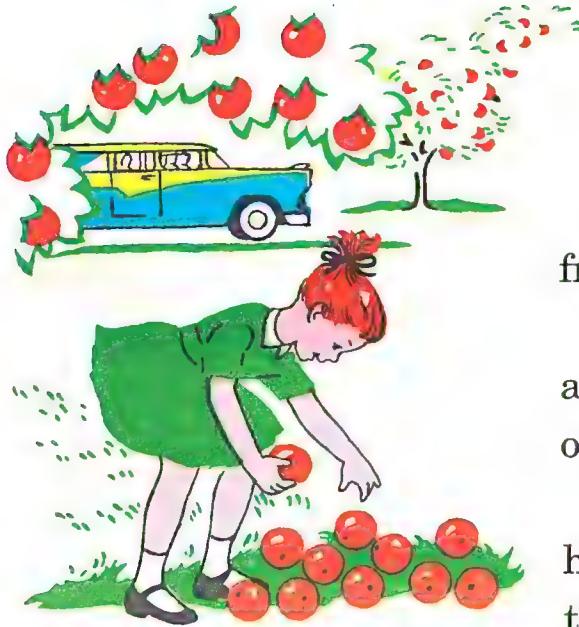
$$\begin{array}{r} 2 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ + 10 \\ \hline \end{array}$$

2. How many will Judy count after 6  
to get 11 trees? after 7? after 8? after 9?

3. Add:

4	5	5	4	1	2	5	6
4	1	4	3	5	7	3	5
3	5	2	4	5	2	3	0
<hr/>							



## Orange Country

Judy has picked oranges from the orange trees.

**1.** What number story about 11 does the picture of the oranges tell you?

**2.** If Judy eats 1 orange, how many will she have left to take to the car?

$$11 = 10 + 1$$

$$11 - 1 = ?$$

$$11 - 10 = ?$$

$$\begin{array}{r} 11 \\ - 1 \\ \hline 10 \end{array}$$

**3.** What **and** story will help you to know  
11 take away 2?

$$11 = 2 + 9$$

$$11 - 2 = ?$$

$$11 - 9 = ?$$

$$\begin{array}{r} 11 \\ - 2 \\ \hline 9 \end{array}$$

**4.** Subtract 8 from 11. Use an **and** story.

$$11 = 8 + 3$$

$$11 - 8 = ?$$

$$11 - 3 = ?$$

$$\begin{array}{r} 11 \\ - 8 \\ \hline 3 \end{array}$$

**5.** Write two **and** stories and two  
**take away** stories about the groups  
7 and 4 in 11; the groups 5 and 6 in 11.

## Can You Think This Way?

Sometimes you may not know the **and** stories that will help you to subtract.

You can think this way:

$$\begin{array}{r} 11 \\ - 4 \\ \hline 7 \end{array} \quad \begin{array}{l} 10 \text{ ones} + 1 \text{ one} \\ - 4 \text{ ones} \\ \hline 6 \text{ ones} + 1 \text{ one} = 7 \text{ ones} \end{array}$$

Some children think this way:

$$\begin{array}{r} 11 \\ - 4 \\ \hline 7 \end{array} \quad \begin{array}{l} \text{We know: } 11 = 10 + 1 \\ \text{We think: } 11 = 10 + 1 \\ \qquad \qquad \qquad - 4 = - 4 \\ \hline \qquad \qquad \qquad 6 + 1 = 7 \end{array}$$

1. Finish this one:

$$\begin{array}{r} 11 \\ - 7 \\ \hline \end{array} \quad \begin{array}{l} \text{We know: } 11 = 10 + ? \\ \text{We think: } 11 = ? + ? \\ \qquad \qquad \qquad - 7 = - ? \\ \hline \qquad \qquad \qquad ? + ? = ? \end{array}$$

2. Use 1 ten as 10 ones      Use **and** stories

to do these:

to help you with these:

$$\begin{array}{r} 11 & 11 & 11 & 11 \\ - 5 & - 9 & - 6 & - 8 \\ \hline \end{array} \quad \begin{array}{r} 11 & 11 & 11 & 11 \\ - 2 & - 1 & - 7 & - 4 \\ \hline \end{array}$$



## Sending Oranges to Friends

Judy and her father and mother send baskets of oranges to some friends.



1. Count the baskets they have bought.
2. There are 11 baskets. How can you tell by looking at the number 11 that there is 1 basket more than 10?
3. How many more than 8 make 11?
4. 7 and how many more make 11?
5. Why does  $5 + 6 = 10 + 1 = 11$ ?
6. Finish the number stories:

9	6	8	7	5	3	4	2
$+ ?$	$+ ?$	$+ ?$	$+ ?$	$+ ?$	$+ ?$	$+ ?$	$+ ?$
$\underline{11}$							
11	11	11	11	11	11	11	11
$- 2$	$- 8$	$- 6$	$- 4$	$- 7$	$- 5$	$- 3$	$- 9$
$\underline{\quad}$							

7. Build a ten when you add these:

3	4	3	5	6	7	3	8
4	2	6	5	3	2	7	1
$\underline{4}$	$\underline{5}$	$\underline{2}$	$\underline{1}$	$\underline{2}$	$\underline{2}$	$\underline{1}$	$\underline{2}$

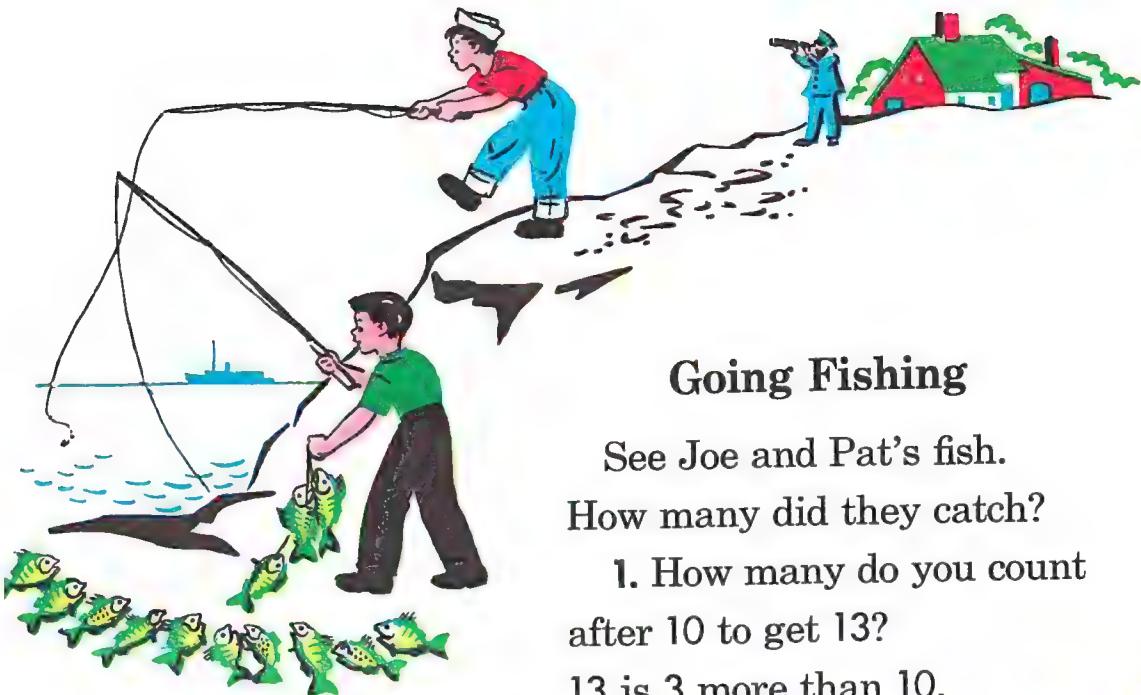


## Who Knows the Answer?

Tom and Bill like to play in the snow.  
Can you tell what they are doing?  
On which hill would you like to slide?

1. Where is a **high** hill? Where is a **low** hill?
2. Tom has gone to the **highest** hill.  
Which boy is Tom?
3. Bill is on the first hill. Is that the **lowest** hill here? Is it **higher** or **lower** than the middle hill?
4. Tom is going up hill. Does he have his **back** to us? Does Bill?
5. Put your right hand in **front** of you.





## Going Fishing

See Joe and Pat's fish.

How many did they catch?

1. How many do you count after 10 to get 13?

13 is 3 more than 10.

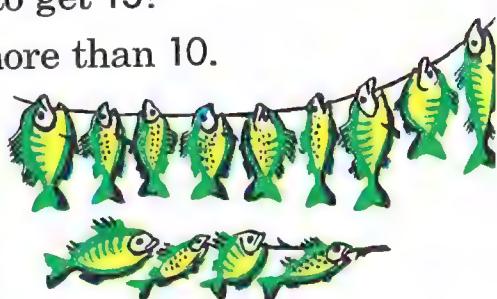
2. If the boys take one fish from the long string and put it on the short string, what will that tell you about 13?

$$3. \quad 10 + 3 = ? \quad \begin{array}{r} 10 \\ + 3 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ + 10 \\ \hline \end{array} \quad 9 + 4 = ? \quad \begin{array}{r} 9 \\ + 4 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ + 9 \\ \hline \end{array}$$

4. We know that  $13 = 10 + 3$ . Why does  $3 + 10 = 13$ ?

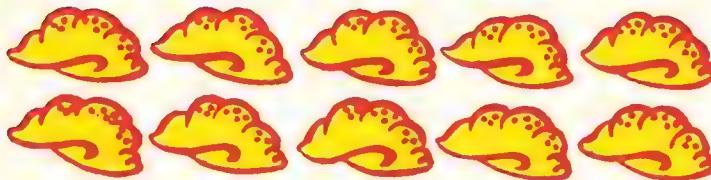
5. If  $9 + 4 = 13$ , why does  $4 + 9 = 13$ ?

$$\begin{array}{l} 13 = 10 + 3 \\ 13 = 9 + 4 \end{array} \quad \begin{array}{r} 10 \\ + 3 \\ \hline 13 \end{array} \quad \begin{array}{r} 3 \\ + 10 \\ \hline 13 \end{array} \quad \begin{array}{r} 9 \\ + 4 \\ \hline 13 \end{array} \quad \begin{array}{r} 4 \\ + 9 \\ \hline 13 \end{array}$$



## Judy Finds Pretty Shells

Alice and Judy like shells. Judy has some that she wants to take home with her. How many are there in all?



What two groups of shells do you see?

1. If Alice puts 8 shells in one hand and 5 shells in the other hand, does she have all 13 of her shells? Why?

$$13 = 8 + 5 \quad \begin{array}{r} 8 \\ + 5 \\ \hline 13 \end{array}$$

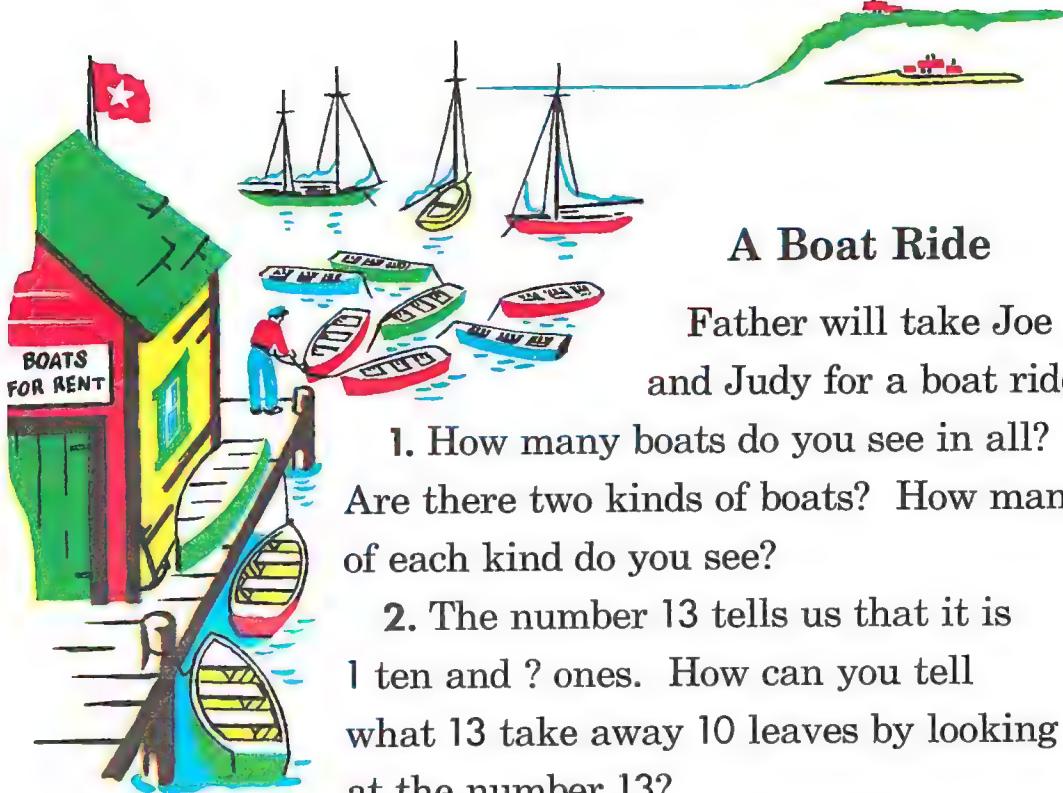


2. Can we put 13 shells into a group of 6 shells and a group of 7 shells?

$$13 = 7 + 6 \quad \begin{array}{r} 7 \\ + 6 \\ \hline 13 \end{array}$$



3.  $8 + 5 = ?$        $\begin{array}{r} 8 \\ + 5 \\ \hline \end{array}$
- $7 + 6 = ?$        $\begin{array}{r} 7 \\ + 6 \\ \hline \end{array}$
- $5 + 8 = ?$        $\begin{array}{r} 5 \\ + 8 \\ \hline \end{array}$
- $6 + 7 = ?$        $\begin{array}{r} 6 \\ + 7 \\ \hline \end{array}$



## A Boat Ride

Father will take Joe  
and Judy for a boat ride.

1. How many boats do you see in all?  
Are there two kinds of boats? How many  
of each kind do you see?
2. The number 13 tells us that it is  
1 ten and ? ones. How can you tell  
what 13 take away 10 leaves by looking  
at the number 13?

You know these:

$$13 = 10 + 3$$

$$13 = 9 + 4$$

$$13 = 8 + 5$$

$$13 = 7 + 6$$

Finish these stories:

$$13 - 10 = ?$$

$$13 - 9 = ?$$

$$13 - 8 = ?$$

$$13 - 7 = ?$$

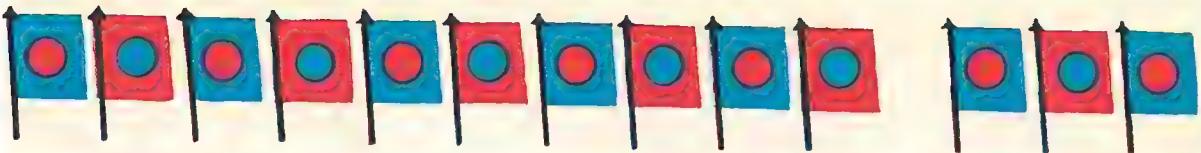
$$13 - 3 = ?$$

$$13 - 4 = ?$$

$$13 - 5 = ?$$

$$13 - 6 = ?$$

3. A group of people took 9 of the  
13 boats. How many boats were left?
4. 13 is ? more than 7.
5. 13 take away 8 is how many?



## Another Way to Subtract

There are different ways of finding what is left in a **take away** story.

1. Can you finish this?

$$\begin{array}{r} 13 \\ - 5 \\ \hline \end{array} = (10 + 3) - 5$$

You know that 13 has the parts  $10 + 3$ .

$$\begin{array}{r} 13 \\ - 5 \\ \hline 5 + 3 = ? \end{array}$$

You can take the 5 away from the 10. How many does that leave? You see that you have  $5 + 3$  left.

$5 + 3$  are how many?

2. Do these. Use  $13 = 10$  ones and 3 ones:

$$\begin{array}{r} 13 \\ - 8 \\ \hline \end{array} \quad \begin{array}{r} 13 \\ - 4 \\ \hline \end{array} \quad \begin{array}{r} 13 \\ - 5 \\ \hline \end{array} \quad \begin{array}{r} 13 \\ - 7 \\ \hline \end{array} \quad \begin{array}{r} 13 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 13 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 13 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 13 \\ - 10 \\ \hline \end{array}$$

3. Do you know the answers to these?

$13 - ? = 5$

$13 - ? = 0$

$13 - 4 = ?$

$13 - 9 = ?$

$? - 5 = 8$

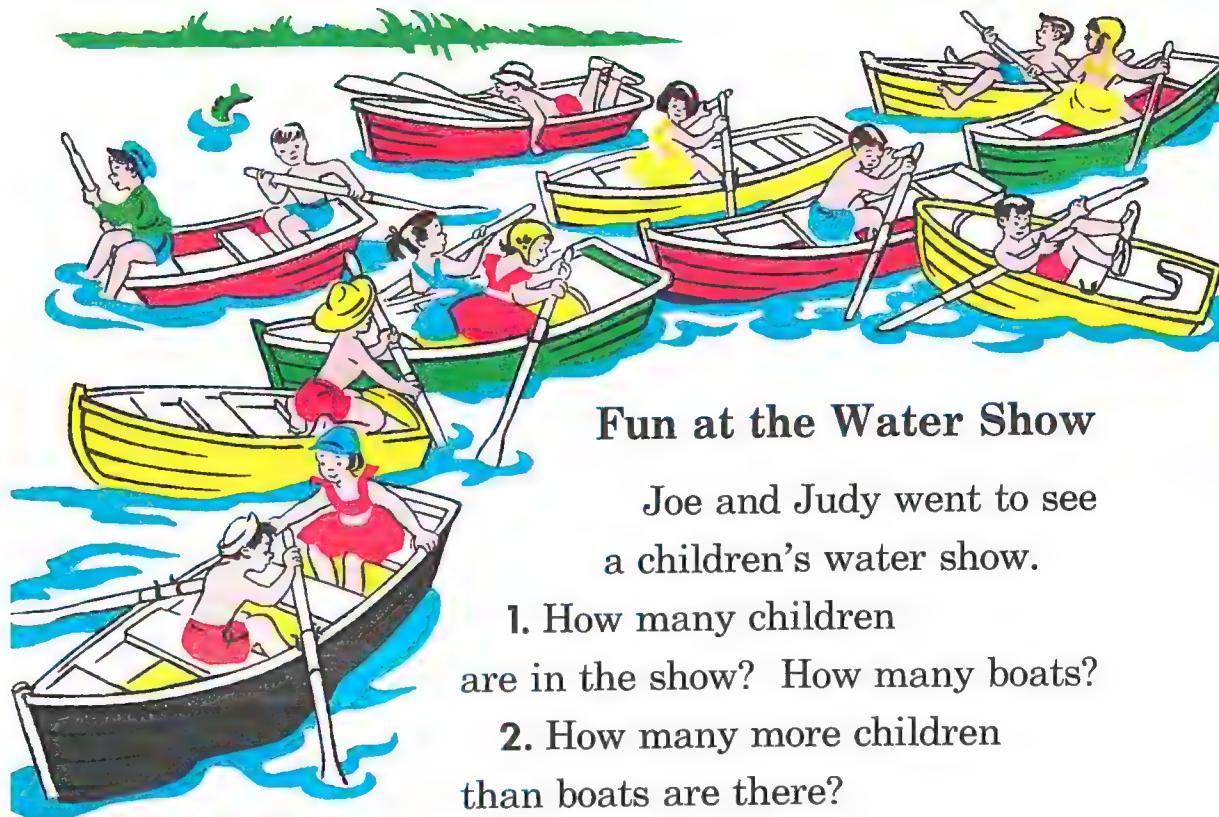
$? - 3 = 10$

$13 - 6 = ?$

$13 - 10 = ?$

$13 - ? = 6$

$$\begin{array}{r} ? & 13 & 13 & ? & 13 & 13 & 13 & 13 \\ - 5 & - ? & - 7 & - 6 & - ? & - 10 & - ? & - 3 \\ \hline 8 & 9 & ? & 7 & 5 & ? & 4 & ? \end{array}$$



## Fun at the Water Show

Joe and Judy went to see  
a children's water show.

1. How many children  
are in the show? How many boats?
2. How many more children  
than boats are there?
3. Six children jump into the water.  
Then seven more jump into the water.  
How many children are in the water now?  
Do any of the children stay in the boats?
4. The children had some races.  
9 children were in one race. 4 children  
were in the next race. Were all  
of the children in these two races? Why?
5. 8 boys and 5 girls were in one race.  
How many children were in that race?



## How Well Do You Remember?

1. Some children went for a walk.  
Seven of them looked for flowers.  
Four other children watched for birds.  
How many children were there in all?
2. Is 11 more or less than 13? Why?
3. The larger group in 11 things is 9 things.  
How many are in the smaller group?
4. Judy had 13 shells. She gave 7 of them to Jane. How many did she keep?
5. How many hours are between 5 o'clock and 11 o'clock? between 2 o'clock and 11 o'clock?



6. Add these:

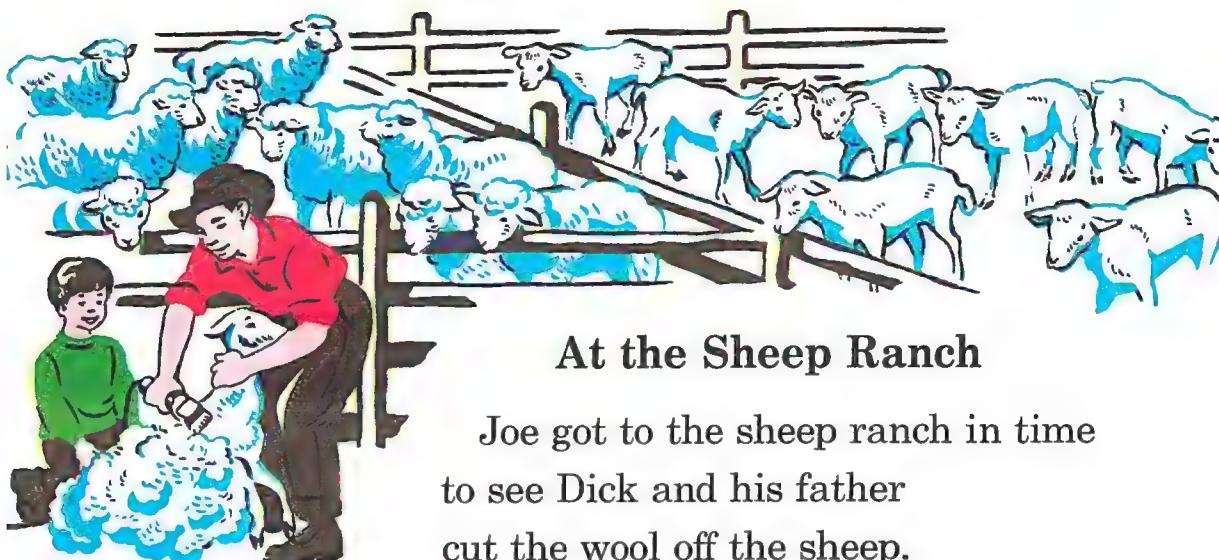
$$\begin{array}{r} 4 & 7 & 3 & 6 & 8 & 4 & 10 & 2 \\ \underline{7} & \underline{6} & \underline{8} & \underline{5} & \underline{5} & \underline{9} & \underline{3} & \underline{9} \end{array}$$

7. Subtract these:

$$\begin{array}{r} 11 & 13 & 11 & 11 & 13 & 13 & 11 & 13 \\ \underline{4} & \underline{5} & \underline{9} & \underline{3} & \underline{7} & \underline{10} & \underline{5} & \underline{9} \end{array}$$

8. Do what the signs tell you to do:

$$\begin{array}{r} 11 & 3 & 9 & 11 & 5 & 13 & 7 & 11 \\ -2 & +10 & +4 & -10 & +6 & -8 & +4 & -7 \\ \hline \end{array}$$



## At the Sheep Ranch

Joe got to the sheep ranch in time  
to see Dick and his father  
cut the wool off the sheep.

1. How many sheep do you see in all?      **10**      **17**  
How many have long wool? How many      **+ 7**      **- 10**  
have had their wool cut off?                  **17**
2. What number story does that tell you      **- 7**  
about 17?    **9**
3. How many more sheep need to have      **+ 8**  
their wool cut, so that you have              **8**  
the story  $17 = 9 + 8$ ?                              **+ 9**
4. How do you know that  $10 + 7 = 9 + 8$ ?      **17**
5. What **take away** stories does      **17**      **17**  
 $17 = 9 + 8$  help you to know?              **- 9**      **- 8**
6. Can you finish these stories now?  
 $10 + ? = 17$        $17 - 9 = ?$        $17 - 10 = ?$        $9 + ? = 17$   
 $7 + ? = 17$        $17 - 8 = ?$        $17 - 7 = ?$        $8 + ? = 17$



## Visiting a Cattle Ranch

Joe wants to be a cowboy when he grows up.  
He was very happy to be at a ranch  
where there were cowboys.



Joe ate dinner with 19 cowboys.

1. Is 19 an even number? How do you know?

2. 10 cowboys will stay at the house.

Count the cowboys that are going to get  
their horses.

3. Let's look at these stories about 19:

$$19 = 10 + 9 \quad 19 = 9 + 10 \quad 19 - 9 = 10 \quad 19 - 10 = 9$$

4. Joe wants to buy a cowboy picture for 19¢.  
How much more than a dime does he need?



## How Well Have You Learned?

1. Using  $11 = 10 + 1$ , how do you get these stories?

$$11 = 7 + 4 \quad 11 = 6 + 5 \quad 11 = 9 + 2 \quad 11 = 8 + 3$$

2. What take away stories do these and stories tell you?

$$13 = 9 + 4 \quad 13 = 8 + 5 \quad 13 = 6 + 7 \quad 13 = 10 + 3$$

3. Tell the missing numbers.

Use and stories or what you know about 10 to help you:

$$\begin{array}{r} 8 \\ + ? \\ \hline 17 \end{array} \quad \begin{array}{r} 10 \\ + ? \\ \hline 17 \end{array} \quad \begin{array}{r} 9 \\ + ? \\ \hline 17 \end{array} \quad \begin{array}{r} 17 \\ - ? \\ \hline 10 \end{array} \quad \begin{array}{r} 17 \\ - ? \\ \hline 8 \end{array} \quad \begin{array}{r} 17 \\ - ? \\ \hline 9 \end{array} \quad \begin{array}{r} 9 \\ + ? \\ \hline 19 \end{array} \quad \begin{array}{r} 19 \\ - ? \\ \hline 10 \end{array}$$

4. Add these. How many more ones than a ten do you have?

$$\begin{array}{r} 5 \\ 6 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ 4 \\ \hline \end{array} \quad \begin{array}{r} 5 \\ 8 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ 9 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ 8 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ 2 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ 9 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ 6 \\ \hline \end{array} \quad \begin{array}{r} 8 \\ 3 \\ \hline \end{array}$$

5. Add these. Then tell the take away stories that they give you:

$$\begin{array}{r} 4 \\ 7 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ 7 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ 8 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ 10 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ 10 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ 5 \\ \hline \end{array} \quad \begin{array}{r} 2 \\ 9 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ 8 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ 9 \\ \hline \end{array}$$

## Quick Answers—Please

1. How do you know a teens number when you see one?
2. Why does 10 have a 0 in ones place?
3. These are called **doubles**.

Tell the answers:

2	3	4	5	6	7	8	9
+ 2	+ 3	+ 4	+ 5	+ 6	+ 7	+ 8	+ 9
<hr/>							

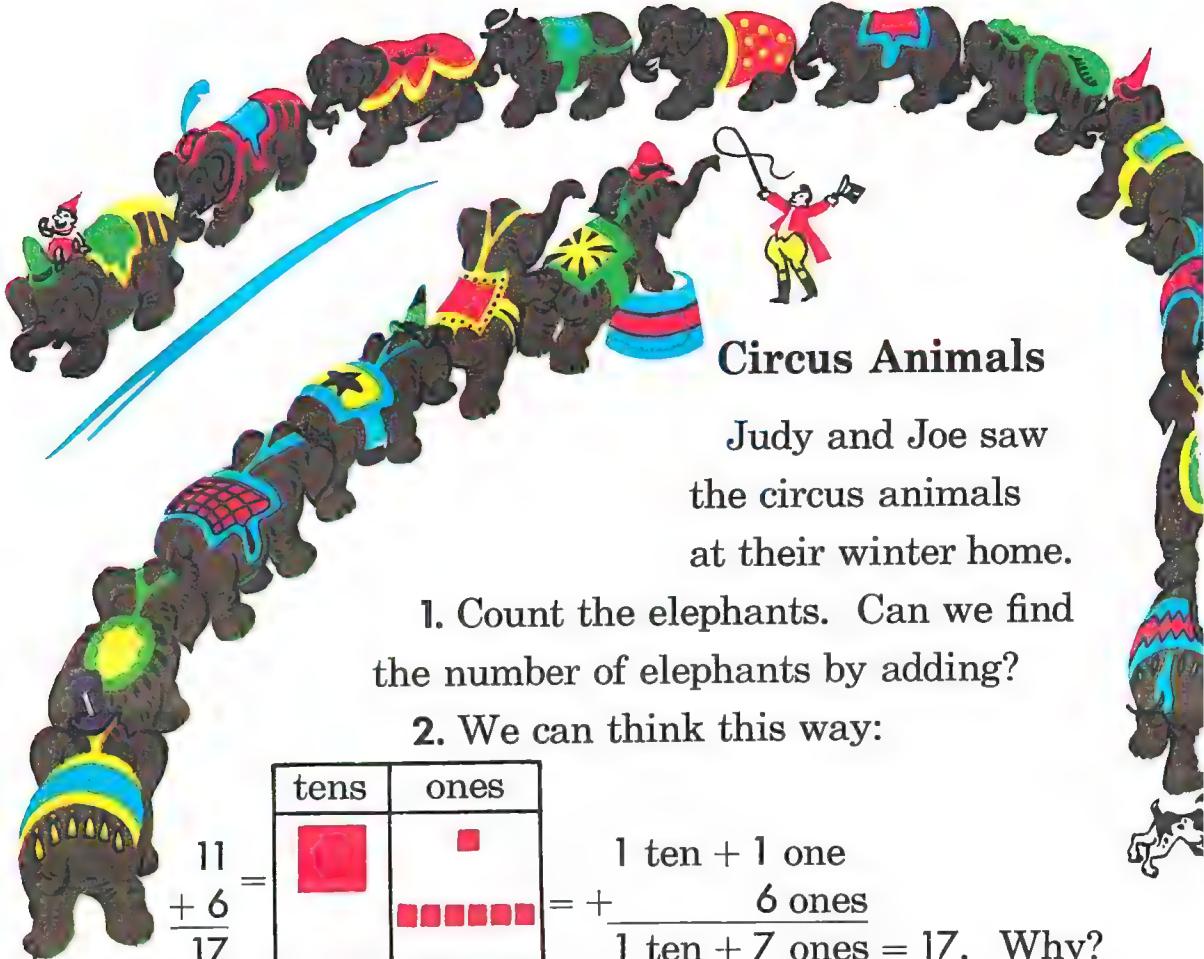
4. Finish these times stories:

2	4	5	2	4	1	3	2	4
5	3	1	6	4	2	3	7	2
<hr/>								
2	6	2	9	8	3	1	6	7
3	2	2	1	2	4	5	3	1
<hr/>								
3	2	6	3	9	3	2	1	2
5	4	1	2	2	6	9	6	8
<hr/>								

5. Find the answers to these, then write two **take away** stories about each one:

$7 + 4 = ?$	$8 + 3 = ?$	$7 + 5 = ?$	$9 + 3 = ?$
$7 + 6 = ?$	$8 + 5 = ?$	$9 + 2 = ?$	$5 + 6 = ?$
$8 + 4 = ?$	$9 + 6 = ?$	$8 + 7 = ?$	$9 + 4 = ?$
$8 + 6 = ?$	$9 + 8 = ?$	$7 + 9 = ?$	$9 + 5 = ?$





## Circus Animals

Judy and Joe saw  
the circus animals  
at their winter home.

1. Count the elephants. Can we find  
the number of elephants by adding?

2. We can think this way:

$$\begin{array}{r}
 11 \\
 + 6 \\
 \hline
 17
 \end{array}
 = \begin{array}{|c|c|} \hline \text{tens} & \text{ones} \\ \hline 1 & 1 \\ \hline \end{array} = \begin{array}{r}
 1 \text{ ten} + 1 \text{ one} \\
 + \frac{6 \text{ ones}}{1 \text{ ten} + 7 \text{ ones}} = 17. \text{ Why?}
 \end{array}$$

3. We can add like this too:

13      We see 3 ones and 6 ones.

$$\begin{array}{r}
 + 6 \\
 \hline
 9
 \end{array}
 \quad \text{Think } 3 + 6 = 9.$$

Write 9 in ones place in the answer.

$$\begin{array}{r}
 13 \\
 + 6 \\
 \hline
 19
 \end{array}
 \quad \text{We have only 1 ten, so we will get}\\
 \quad \text{1 ten in the answer.}$$

We see that the answer is 19.

**4.** Add these:

Write tens and ones.

$$\begin{array}{cccc} 12 & 11 & 14 & 13 \\ \underline{5} & \underline{6} & \underline{4} & \underline{6} \end{array}$$

Think tens and ones.

$$\begin{array}{cccc} 17 & 12 & 15 & 16 \\ \underline{2} & \underline{6} & \underline{4} & \underline{3} \end{array}$$

- 5.** If Joe saw 7 and 6 and 4 elephants,  
how many did he see in all?

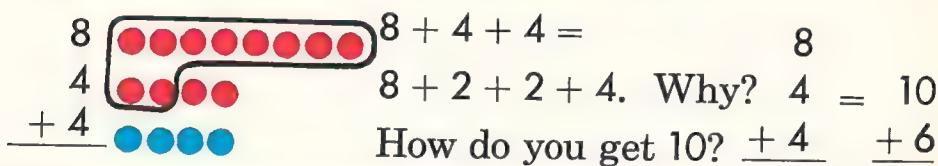
Let's add downward.

$$\begin{array}{r} 7 \\ 6 \\ + 4 \\ \hline \end{array}$$

$$\text{Think } 7 + 6 = 7 + 3 + 3 = 10 + 3 = 13.$$

$$\begin{aligned} 13 + 4 &= 1 \text{ ten} + 3 \text{ ones} + 4 \text{ ones} \\ &= 1 \text{ ten} + 7 \text{ ones. } 1 \text{ ten} + 7 \text{ ones} = ? \end{aligned}$$

**6.** Finding a ten will help you to add.



**7.** Tell how many more than 10 you find:

$$\begin{array}{ccccccccc} 2 & 3 & 9 & 4 & 8 & 7 & 3 & 5 \\ 2 & 3 & 1 & 4 & 3 & 5 & 4 & 5 \\ + 8 & + 6 & + 4 & + 4 & + 3 & + 4 & + 5 & + 4 \\ \hline \end{array}$$

**8.** Build a ten in adding these:

$$\begin{array}{ccccccccc} 2 & 5 & 5 & 6 & 4 & 9 & 6 & 7 \\ 8 & 1 & 6 & 5 & 8 & 3 & 2 & 6 \\ 3 & 8 & 3 & 7 & 7 & 5 & 9 & 4 \\ \hline \end{array}$$

## Can You Subtract This Way?

We can use a ten and some ones  
when we subtract.

tens	ones
1	11

$$\begin{array}{r} 18 \\ - 6 \\ \hline \end{array}$$

We have 1 ten and 8 ones.

We take 6 ones away from 8 ones.

We have 1 ten and 2 ones left.

We have 12 left. Why?

We can figure  
this way.

Make a picture  
to go with it.

$$\begin{array}{r} 18 \\ - 6 \\ \hline \end{array} = \begin{array}{l} 1 \text{ ten and } 8 \text{ ones} \\ - 6 \text{ ones} \\ \hline 1 \text{ ten and } 2 \text{ ones} = 12 \end{array} \quad \begin{array}{r} 18 \\ - 6 \\ \hline 12 \end{array}$$

1. Finish this one:  $\begin{array}{r} 16 \\ - 3 \\ \hline \end{array} = \begin{array}{l} 1 \text{ ten and ? ones} \\ - ? \text{ ones} \\ \hline ? \text{ ten and ? ones} = ? \end{array} \quad \begin{array}{r} 16 \\ - 3 \\ \hline ? \end{array}$

2. Do this one. Write  $\begin{array}{r} 18 \\ - 7 \\ \hline \end{array} = ? \text{ and ?}$   
the figures on the board.

3. Do these on paper or on the board:

17	16	13	19	18	15	14	16
- 5	- 4	- 2	- 6	- 4	- 1	- 3	- 5
17	19	18	14	12	17	18	15
- 3	- 4	- 7	- 2	- 2	- 4	- 3	- 3



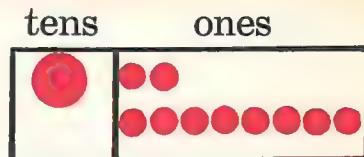
$$=$$


1 ten                                    10 ones

Sometimes we need to change a ten  
to ones when we subtract. Let's see why.

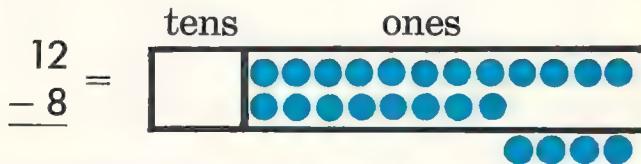
$12$  We have

$\underline{- 8}$  We want to take away



Can we take 8 ones away from the ones  
in this picture? Why not?

We think this way:



How did we take 8 away from 12  
in this picture?

1. Can you finish this without pictures?

$$\begin{array}{r} 12 \\ - 8 \\ \hline \end{array} =$$

$10 \text{ ones and } 2 \text{ ones}$ $- 8 \text{ ones}$ $\hline$ $? \text{ ones and } ? \text{ ones}$	$\text{or}$ $\frac{12}{- 8} =$ $\frac{10 + 2}{- 8}$ $\frac{\hline}{? + ? = ?}$
---	---

2. Subtract:

$$\begin{array}{r} 15 \\ 13 \\ 11 \\ 17 \\ 12 \\ \hline 6 \\ 4 \\ 3 \\ 9 \\ 5 \\ \hline \end{array} \quad \begin{array}{r} 18 \\ 16 \\ 14 \\ 15 \\ \hline 9 \\ 7 \\ 8 \\ 7 \\ \hline \end{array}$$



## Joe's Boat Ride

Joe paid 20¢ for a boat ride.

Are there 20 pennies here?

1. Can you find 2 groups of 10 pennies each?

What does this picture tell you about twenty cents?

2. What does the number 20 mean?
3. What number is

in tens place in 20?

4. How many more than 10 is 20?

5. How many nickels equal a dime? equal 2 dimes?

6. How many groups of 5 are there in 20?

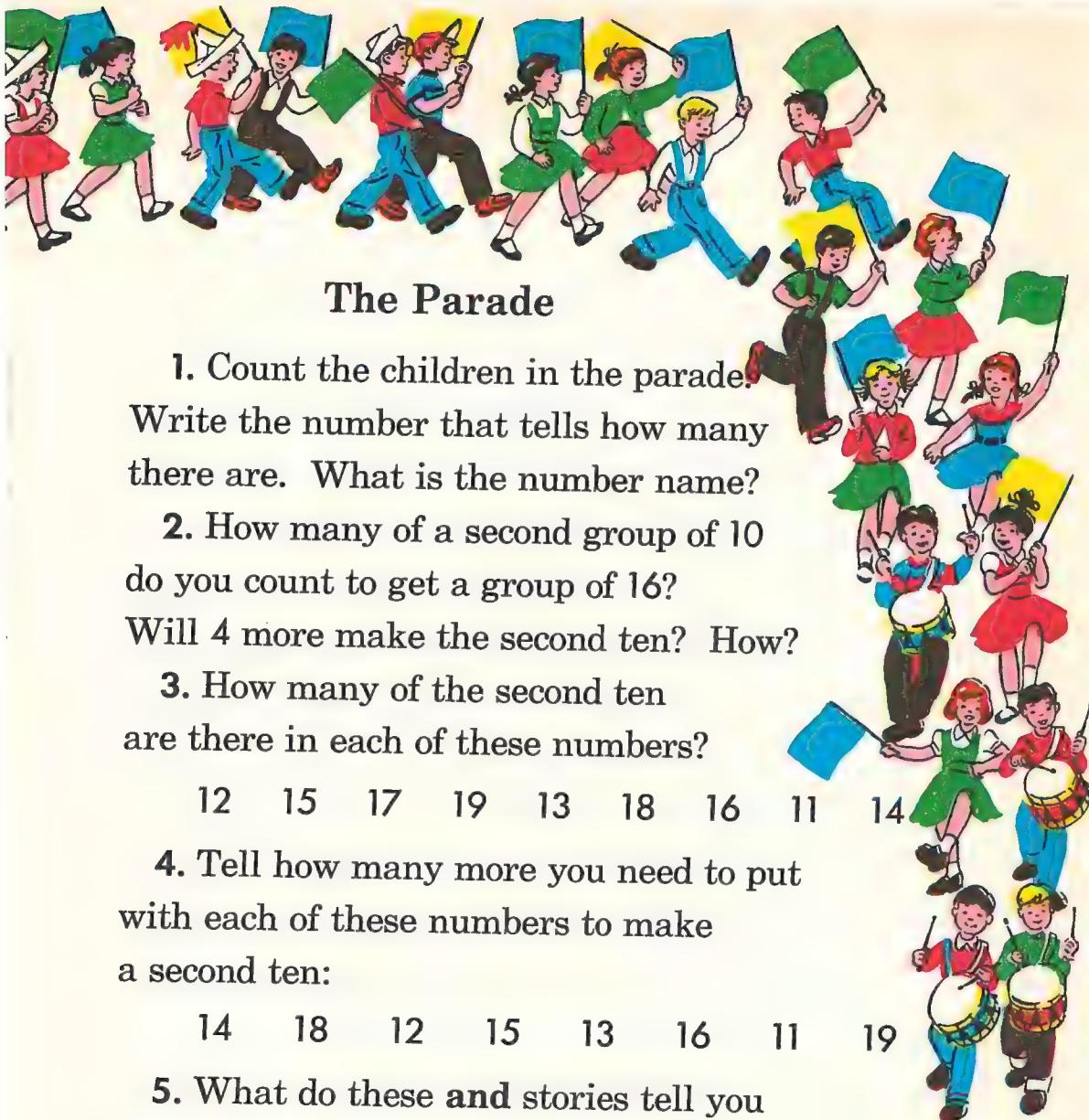
Can you find groups of 4 pennies each in Joe's 20¢?

20¢

	20 pennies
2 dimes	0 pennies
2 tens	0 ones

$$\begin{array}{r}
 10 & 10 & 20 \\
 + 10 & \times 2 & - 10 \\
 \hline
 20 & 20 & 10
 \end{array}$$

$$\begin{array}{r}
 4 \times 5 = 20 & 5 & 4 \\
 5 \times 4 = 20 & \times 4 & \times 5 \\
 \hline
 & 20 & 20
 \end{array}$$



## The Parade

1. Count the children in the parade.

Write the number that tells how many there are. What is the number name?

2. How many of a second group of 10 do you count to get a group of 16?

Will 4 more make the second ten? How?

3. How many of the second ten are there in each of these numbers?

12    15    17    19    13    18    16    11    14

4. Tell how many more you need to put with each of these numbers to make a second ten:

14    18    12    15    13    16    11    19

5. What do these **and** stories tell you about 20?

<b>12</b>	<b>14</b>	<b>18</b>	<b>13</b>	<b>15</b>	<b>11</b>	<b>17</b>	<b>19</b>	<b>16</b>
<u>8</u>	<u>6</u>	<u>2</u>	<u>7</u>	<u>5</u>	<u>9</u>	<u>3</u>	<u>1</u>	<u>4</u>



## What Do You Know about 20?

1. What is the number name for 20?

What figure is in ones place in 20?

How many tens are in 20? How do you know?

2. Sometimes we need to take  
a teens number away from 20.

$$\begin{array}{r} 20 \\ - 15 \\ \hline \end{array} \quad \begin{array}{l} \text{2 tens and 0 ones} \\ \text{---} \\ \text{1 ten and 5 ones} \end{array} \quad \begin{array}{l} \text{We have 0 ones} \\ \text{in 20 so we cannot} \\ \text{take 5 ones away.} \end{array}$$

We must change one of the tens  
in 20 to ones to help us.

$$\begin{array}{r} 20 \\ - 15 \\ \hline \end{array} \quad \begin{array}{l} \text{1 ten and 10 ones} \\ \text{---} \\ \text{1 ten and 5 ones} \end{array} \quad \begin{array}{r} 20 \\ - 17 \\ \hline \end{array} \quad \begin{array}{l} ? \text{ ten and 10 ones} \\ - ? \text{ ten and } ? \text{ ones} \\ \hline ? \text{ ones} \end{array}$$

3. Subtract these:

20	20	20	20	20	20	20	20
<u>19</u>	<u>13</u>	<u>18</u>	<u>12</u>	<u>14</u>	<u>11</u>	<u>16</u>	<u>10</u>

4. Write the missing numbers:

10	4	10	?	2	20	Two ?'s = 20
+ ?	$\times ?$	$\times ?$	$\times 4$	$\times ?$	$- 10$	Five ?'s = 20
$\frac{+ ?}{20}$	$\frac{\times ?}{20}$	$\frac{\times ?}{20}$	$\frac{\times 4}{20}$	$\frac{\times ?}{20}$	$\frac{- 10}{?}$	Ten ?'s = 20

## A Trip to the Zoo

Judy could count  
only twenty monkeys.  
Joe counted the others:  
"Twenty-one, twenty-two,  
twenty-three, twenty-four."

1. How do these number names tell  
that you have twenty and some more?

We write twenty-four as 24.

2.  $24 = 20 + 4$  or 2 tens and 4 ones. Why?  
3. Write the stories about these numbers  
that are twenty and some more:

21    22    23    25    26    27    28    29

4. Build tens and some more in these:

$$\begin{array}{r} 8 & 8 + 6 = 10 + 4 = 14 \quad \text{Why?} \\ 6 & 14 + 9 = 14 + 6 + 3 = 20 + 3 = 23 \quad \text{Why?} \\ + 9 \\ \hline \end{array}$$

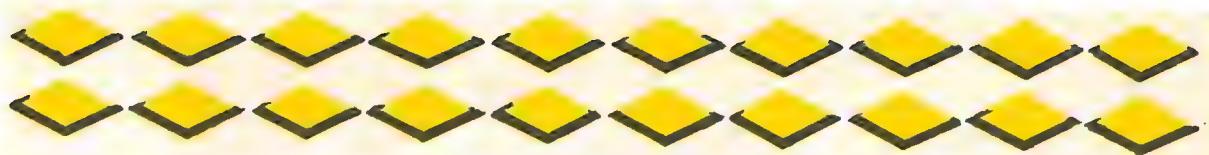
$$\begin{array}{cccccccccc} 8 & 5 & 6 & 9 & 7 & 8 & 4 & 9 \\ 8 & 8 & 7 & 5 & 7 & 6 & 9 & 6 \\ 6 & 9 & 8 & 8 & 9 & 9 & 8 & 8 \\ \hline \end{array}$$

JULY						
SUN.	MON.	TUES.	WED.	THUR.	FRI.	SAT.
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

## Joe and Judy Are Going Home

Joe and Judy will be home in one week.

1. How many days are there in a week?
2. What are the names of the days of the week?
3. The children will get home on the last day of the month. What day of the week is that?
4. On what day of the week was the first day of the month?
5. How many weeks are in the month of July? Are there more days than 4 weeks? How many more?
6. Ask your teacher for a calendar that shows all of the months. See if they all have the same number of days.



## Let's Do These

1. Make a picture to show  $\begin{array}{r} 17 \\ - 8 \\ \hline \end{array}$
2. Show how you subtract these:  $\begin{array}{r} 20 \\ - 18 \\ \hline \end{array}$     $\begin{array}{r} 20 \\ - 14 \\ \hline \end{array}$     $\begin{array}{r} 20 \\ - 13 \\ \hline \end{array}$

3. Do these, then tell two **take away** stories to go with each **and** story:

$$\begin{array}{cccccccccc} 9 & 8 & 4 & 8 & 6 & 3 & 4 & 10 & 7 \\ +6 & +5 & +7 & +9 & +5 & +8 & +9 & +9 & +6 \\ \hline \end{array}$$

4. Do what the signs tell you:

$$\begin{array}{cccccccccc} 9 & 6 & 11 & 13 & 5 & 11 & 10 & 6 & 11 \\ +2 & +7 & -10 & -5 & +6 & -3 & \times 2 & +9 & -2 \\ \hline 9 & 11 & 13 & 5 & 11 & 13 & 11 & 9 & 17 \\ +4 & -6 & -4 & +8 & -9 & -6 & -7 & +10 & -9 \\ \hline 7 & 11 & 8 & 11 & 13 & 9 & 11 & 17 & 13 \\ +4 & -8 & +3 & -4 & -7 & +8 & -5 & -10 & -8 \\ \hline 17 & 19 & 5 & 13 & 17 & 13 & 2 & 19 & 4 \\ -8 & -9 & \times 4 & -9 & -7 & -10 & \times 10 & -10 & \times 5 \\ \hline \end{array}$$

5. Add these: Find a ten and some more.

$$\begin{array}{cccccccccc} 2 & 5 & 2 & 4 & 8 & 9 & 4 & 3 \\ 9 & 5 & 3 & 7 & 5 & 4 & 8 & 9 \\ 6 & 9 & 8 & 6 & 4 & 6 & 1 & 5 \\ \hline \end{array}$$



## Joe Goes to the Circus

1. When Joe went to buy circus tickets, he found 9 children with 4 mothers in line. How many people were waiting in line?
2. 11 horses had riders. 9 riders were men. The others were girls. How many horses had girl riders?
3. Seventeen monkeys were doing tricks. Eight ran back to their cage. Find the number of monkeys that stayed to do more tricks.
4. The balloon man had 8 red balloons, 6 yellow balloons and 5 green balloons. How many balloons did he have in all?
5. Nineteen clowns were in a parade. Five of them had baby pigs on strings and five had dogs on strings. How many clowns had no animals? How do you know?
6. Joe bought peanuts and popcorn for 10¢ each. How much did he spend?



## Unit Test

1. How fast can you tell the answers?

$$\begin{array}{cccccccc} 7 & 5 & 9 & 9 & 6 & 8 & 8 & 13 \\ + 4 & + 8 & + 8 & + 4 & + 7 & + 5 & + 9 & + 7 \\ \hline \end{array}$$

2. How much more than 1 ten do you get?

$$\begin{array}{cccccccc} 8 & 12 & 11 & 6 & 3 & 6 & 11 & 8 \\ + 3 & + 7 & + 6 & + 14 & + 16 & + 5 & + 8 & + 9 \\ \hline \end{array}$$

3. Add these by thinking 10 and some more:

$$\begin{array}{cccccccc} 9 & 8 & 4 & 7 & 6 & 5 & 8 & 8 \\ 4 & 1 & 4 & 6 & 8 & 7 & 3 & 5 \\ 4 & 8 & 5 & 6 & 5 & 7 & 2 & 4 \\ \hline \end{array}$$

4. Subtract:

$$\begin{array}{cccccccc} 13 & 17 & 11 & 13 & 11 & 17 & 20 & 19 \\ 4 & 9 & 7 & 8 & 6 & 8 & 4 & 9 \\ \hline \end{array}$$

5. Add by building tens:

$$\begin{array}{cccccccc} 7 & 3 & 5 & 8 & 7 & 9 & 9 & 8 \\ 8 & 9 & 8 & 6 & 7 & 4 & 3 & 8 \\ 5 & 8 & 7 & 6 & 6 & 7 & 8 & 4 \\ \hline \end{array}$$

6. The signs tell you what to do:

$$\begin{array}{llll} 11 - 8 = ? & 18 + 2 = ? & 3 + 10 = ? & 13 - 5 = ? \\ 13 - 9 = ? & 8 + 12 = ? & 4 + 9 = ? & 11 - 4 = ? \end{array}$$

## Unit 8

# We Are Growing Up



## **Doing Things by Ourselves**

What are the children doing in the picture  
that you can do by yourself?

Does your mother have to call you  
when it is time to get up? What helps you  
to know when it is time to do things?

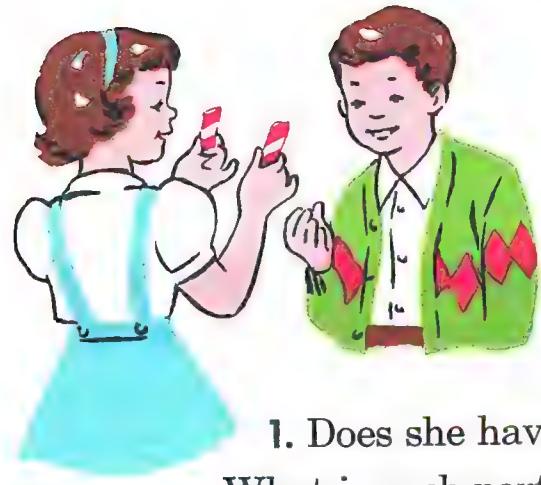
Can you tell when it is time for you  
to go to school? How far is it  
from your house to school?

**1.** Bill and Pete are making  
birthday cards. What did they use  
to help them know where to cut the paper?

**2.** How much of the big piece of paper  
will each boy have when it is cut  
into two equal parts?

**3.** What things in the picture are used  
to measure something?

**4.** What will the girls use to tell them  
what to put into their cookies?



## June's Candy Stick

June is giving Bill  
some of her candy stick.  
Has she broken the candy  
in the middle?

1. Does she have two equal parts?

What is each part called  
when the two parts are equal?

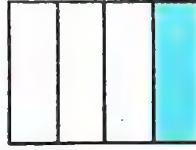
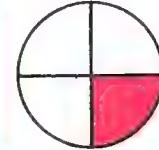
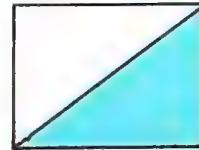
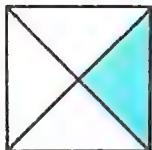
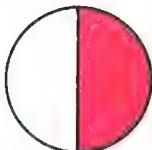
**One-half** is a number name. It is  
the name for  $\frac{1}{2}$ . The 2 under the line  
tells about the two equal parts  
of something. The 1 over the line  
tells you that you are using  
1 of the 2 equal parts.

If anything is broken into 4 equal parts,  
each part is called **one-fourth**.

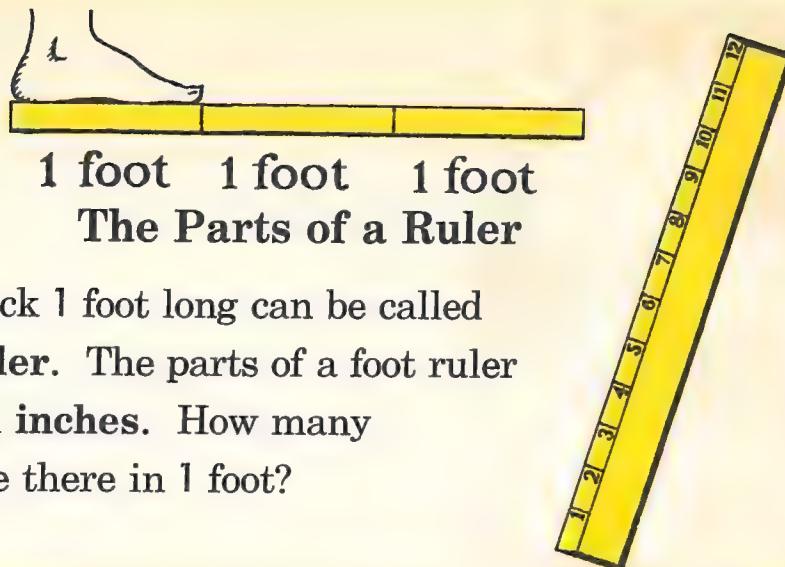
2. One-fourth is the name for  $\frac{1}{4}$ .

What does the number under the line tell?  
What does the 1 over the line tell?

3. Which of these pictures show  $\frac{1}{2}$ ? show  $\frac{1}{4}$ ?



*One-half, One-fourth*



1. A stick 1 foot long can be called a **foot ruler**. The parts of a foot ruler are called **inches**. How many inches are there in 1 foot?



2. Do you have a **yardstick** in your school room? Tell how you use it.

The yard has 3 equal parts.  
Each of these parts is one foot long.

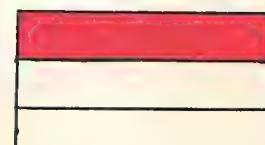
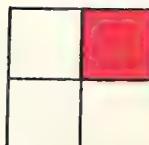
**A yard is three feet long.**

When you have 1 of the 3 equal parts of something, you have one-third of it.

3. **One-third** is the name for  $\frac{1}{3}$ .

What does the 3 in  $\frac{1}{3}$  tell you? the 1?

4. Find parts of  $\frac{1}{3}$  in these pictures:



One-third, Foot, Yard, Inch



## Lunch out of Doors

The children are going to have their lunch in the yard.

1. Bill breaks his candy bar into two equal parts. If he gives June one of the parts, what part does she get?

2. What part will Bill have left for himself?

3. Look! Here comes Kay! If Bill gives an equal part of his candy to June, Kay and himself, what part will each one have?

4. Kay had a cake.

It was cut into parts. You see that she has given one part to Bill and one part to June.

Spot wants a piece, too.

How many parts does Kay have left?

How many parts were in her cake?

If all of the parts were equal, what would each part be called?

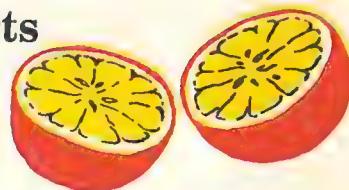


## A Family Name for Parts

Mother has cut the orange  
into two equal parts.

When something has been cut  
into two equal parts, we say  
that the parts are **halves**.

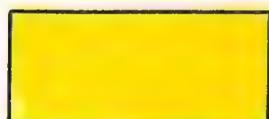
It is never right to say that  
something is cut in half. There are  
two parts, so we must say halves.



**halves**



**halves**



1. Here is an oblong. How can  
you fold an oblong to make halves?

2. What does it mean to cut  
something into thirds?

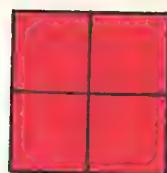
3. How many equal parts would you have  
if a pie was cut into thirds?



**thirds**

4. How many fourths are there  
in a whole thing? We sometimes use  
the word **quarter** to mean one-fourth.  
A 25¢ piece is called a quarter.

Is it one-fourth of something? Of what?  
It is one-fourth of a dollar.



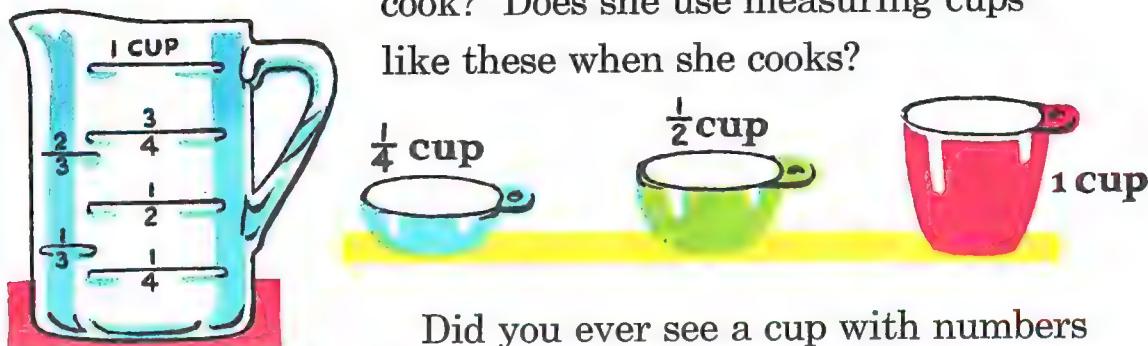
**quarters**



**a quarter**

## Cooking Is Fun

Do you like to watch your mother cook? Does she use measuring cups like these when she cooks?



Did you ever see a cup with numbers on it, like this one? You know what  $\frac{1}{2}$ ,  $\frac{1}{3}$ ,  $\frac{1}{4}$  mean. Let's find out what  $\frac{2}{3}$  and  $\frac{3}{4}$  mean. The number name for  $\frac{2}{3}$  is two-thirds.

1. In  $\frac{1}{3}$  the 3 under the line tells you that a whole has been cut into 3 equal parts. What will the 3 under the line in  $\frac{2}{3}$  tell you?

2. What does the 1 over the line in  $\frac{1}{3}$  tell? If you have 2 over the line it tells you that you use 2 of the equal parts.

3. What do the figures in  $\frac{3}{4}$  tell you?  
What is its name?



## June and Kay Make Cookies

June and Kay are making these cookies for a cookie sale at school:

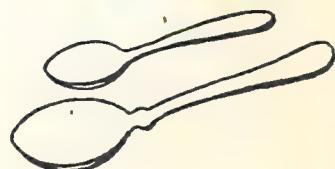
### Sugar Cookies

$2\frac{3}{4}$ cups flour	2 teaspoons baking powder
1 cup sugar	$\frac{1}{3}$ cup milk
$\frac{2}{3}$ cup fat	$\frac{1}{3}$ teaspoon salt
2 eggs	$\frac{1}{2}$ teaspoon vanilla

### Nut Cookies

$\frac{3}{4}$ cup flour	1 teaspoon baking powder
$\frac{1}{3}$ cup sugar	$\frac{1}{4}$ teaspoon salt
$\frac{1}{4}$ cup fat	$\frac{3}{4}$ teaspoon vanilla
1 egg	nuts

1. What does  $\frac{1}{3}$  cup of milk mean?  
 $\frac{1}{4}$  of a cup?  $\frac{3}{4}$  of a cup?
2. Why does  $\frac{2}{3} = 2$  times as much as  $\frac{1}{3}$ ?





## The Milkman Comes

The milkman left 3 bottles at June's house today. June took the bottles to her mother and asked, "What does **quart**, **pint** and  $\frac{1}{2}$  **pint** on the bottles mean?"

Her mother said, "I'm going to let you find out. Here are 3 bottles like the ones the milkman left. The large bottle is a quart, the smaller one is a pint, and the smallest one is a  $\frac{1}{2}$  pint. Find how many  $\frac{1}{2}$  pint bottles of water it takes to fill a pint."

1. How many  $\frac{1}{2}$  pints do you think June will need to fill the pint bottle?

Why? Does the  $\frac{1}{2}$  tell you why?

2. Use bottles, a cup, and some water to show that these are right:

$$1 \text{ quart} = 2 \text{ pints}$$

$$1 \text{ pint} = 2 \text{ half-pints}$$

$$1 \text{ cup} = \frac{1}{2} \text{ pint}$$

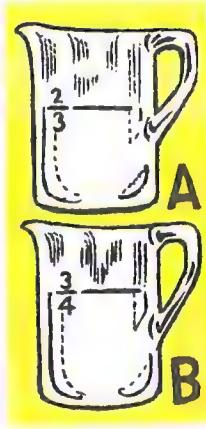
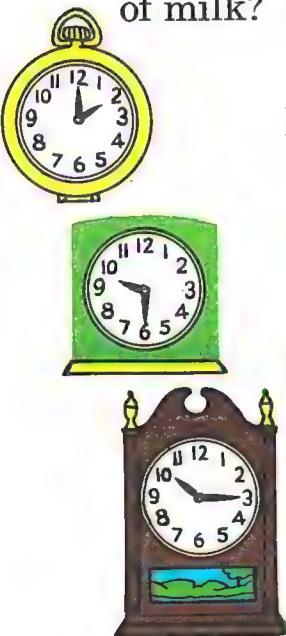
3. How many cups equal 1 pint? 1 quart?



## How Much Is It?

1. If you have a nickel, how many cents do you have? Where is the nickel in the picture?
2. Which coin equals 2 nickels?
3. What is the largest coin in the picture? It says half-dollar. It equals  $\frac{1}{2}$  dollar, or 50¢.
4. What is the name of the fourth coin in the picture? How much is it?
5. Sally has 25 cents. She has 3 coins. What are they? How do you know?
6. Show how 6 coins can equal a dime.
7. 5 dimes equal 50¢. Can you tell this by looking at the number 50? What figure is in tens place in 50?
8. Tell all of the groups of coins that Bill can have to make 25¢.

## Unit Test

1. If you cut an apple into four equal parts, what would each part be called? What would three of these parts be called?
2. One foot is what part of a yard?
3. How many inches are in a foot?
4. What does it mean to cut something into halves? into thirds? into quarters?
5. Which is larger,  $\frac{1}{2}$  or  $\frac{1}{3}$ ? Why?
6. Which picture shows  $\frac{2}{3}$  of a cup of milk? Which shows  $\frac{3}{4}$  of a cup?  

7. How many cups equal 1 pint?  
How many pints equal 1 quart?
8. One pound equals ? ounces.  
How many ounces are in  $\frac{1}{2}$  pound?
9. Tell the names of the coins you know.  
How many nickels equal 2 dimes?
10. How many months are there in a year? Name them.
11. What time does each clock show?  


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All the best



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